

Injury In Virginia

1998 - 1999



**A Report On Injury - Related
Deaths and Hospitalizations**
Revised 4/02



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A Report on Injury-Related Deaths and Hospitalizations for the
Calendar Year 1998 - 1999

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I. EXECUTIVE SUMMARY

This report provides an analysis and evaluation of injury-related deaths in Virginia for the calendar year 1998 and injury-related hospital discharges in Virginia for the calendar years 1998-1999. The information included in this document illustrates the extensive impact of injury in the Commonwealth of Virginia and underscores priority injury prevention needs. Data for this report were based on Virginia resident deaths and hospitalizations that were assigned an underlying cause of death or hospitalization within the ICD-9 code range E800-E999.

Injury Fatalities 1998

- Injury is the leading cause of death for Virginians ages 1 to 44 and the fourth leading cause of death for all Virginians (n=3414). Virginia's injury death rate for 1998 was 50.5 per 100,000, with injuries accounting for 6.4% of all deaths.
- Injury deaths resulted in 73,572 total years of potential life lost (YPLL) before age 65 in Virginia during 1998.
- Injury deaths accounted for 63.9% of all deaths for Virginians ages 1-19 and 70.1% of all deaths for Virginians ages 5 to 24.
- In 1998, the three leading causes of injury death for Virginians were motor vehicle traffic injuries (25.7%), suicide (24.2%) and homicide (11.7%).
- In 1998, males were more than twice as likely as females to die due to injury (RR=2.25, 95%CI= 2.09,2.42). More specifically, males were more than three times as likely as females to die due to suicide (RR=3.69, 95%CI=3.13,4.35). Males were also more than three times as likely as females to die from drowning/ submersion, firearms, natural/ environmental causes, and being struck by/against objects.
- In 1998, blacks were more than five times as likely as whites to die due to homicide (RR=5.74, 95%CI=4.68,7.03), and more than three times as likely as whites to die from cutting/piercing injuries and burns resulting from hot objects.
- In 1998, whites were more than twice as likely as blacks to die due to suicide (RR=2.78, 95%CI= 2.18,3.54) and more than twice as likely as blacks to die due to fall injuries (RR=2.37, 95%CI = 1.60,3.51).
- In 1998, 2147 (62.9%) of all injury deaths were unintentional, 827 (24.2%) resulted from suicide, and 400 (11.7%) resulted from homicide.

Injury Hospitalizations 1998 and 1999

- Virginia hospitals reported 82,911 hospital discharges E-coded for injury during 1998 and 1999. These discharges accounted for 5.1% of all hospital discharges and a rate of 608.2 per 100,000 Virginians.
- The vast majority of injury hospitalizations (80.4%) in Virginia resulted from unintentional causes. Self-inflicted injuries accounted for 10.7% of injury hospitalizations and 3.9% of injuries resulted from assault.
- In 1998 and 1999, the three leading causes of injury hospitalization for Virginians were falls (42.9%), poisonings (14.7%) and motor vehicle traffic injuries (12.8%). Although the proportions change, these injuries remain the top three causes of injury hospitalization for males, females, whites, and blacks respectively.
- Discharges due to injury alone resulted in a total of \$1,000,504,230 in billed charges to public and private payers. The average charge per injury hospitalization was \$12,067.
- Injury hospitalizations resulted in charges of \$44,791,925 for children less than 15 years with an average cost of \$7,611 per injury and \$49,563,099 for children 15-19 years with an average cost of \$10,558 per injury.
- In 1998 and 1999, males were more than two times as likely as females to be hospitalized due to cutting/pierce injuries (RR=2.35, 95%CI=2.10,2.64), three times as likely as females to be hospitalized as a result of bicycle injuries or striking injuries, and almost six times more likely to be hospitalized due to firearm injuries (RR=5.82, 95%CI= 4.71, 7.18).
- Blacks were two times more likely than whites to be hospitalized as a result of hot object burn injuries (RR=2.50,95%CI=1.99,3.14) and almost six times as likely as whites to be hospitalized due to firearm injuries (RR=5.92, 95%CI=5.01,6.95). Whites were two times more likely than blacks to be hospitalized as a result of fall injuries (RR=2.24, 95%CI=2.12,2.35).
- Overall, injuries associated with firearms, falls, poisonings, fire and flames, and motor vehicle traffic resulted in the largest average hospitalization charges.

II. Introduction

Rationale for the Report

Injuries are one of the most under-recognized public health problems facing our society. Injuries are the fourth leading cause of death for all Virginia residents, and accounted for 3414 deaths in 1998. Injury is the leading cause of death for Virginians between 1 and 44 years of age. More children between 1 and 19 years of age die from injury in Virginia than from all other causes combined. In 1998-1999, in addition to an enormous toll from loss of life, injuries resulted in 82,911 hospitalizations at a cost of more than one billion dollars.

The goal of this document is to report the average annual numbers and rates of 1998 injury related deaths and 1998-1999 injury-related hospitalizations that occurred among Virginia residents by mechanism and manner/intent of injury, so that more detailed injury mortality and morbidity data are available for injury surveillance. The information included in this report and in the two previous reports entitled "Injury in Virginia" illustrates the extensive impact of injury in the Commonwealth.

This report addresses both injury-related fatality and hospital discharge data. Hospital discharge data only reflect injuries that resulted in a hospital admission and discharge. Therefore, this report does not include injuries that were treated in emergency rooms, urgent care centers, physicians' offices, at schools, at home, other venues, or those injuries not requiring hospital admission. Nor does it include information on the outcome of an injury after hospital discharge. In several instances, hospitalization may signal the beginning of long-term morbidity, costly rehabilitative stay in a nursing facility or at home care may follow.

Epidemiologic studies have shown that the causes of injuries are predictable and preventable and not randomly occurring accidents. By examining injury patterns, we can identify groups at high risk and potentially modifiable risk factors, affect the occurrence of injury and more effectively allocating resources for prevention and intervention programs.

Methods

This report was developed and produced by the Center for Injury and Violence Prevention, which is a part of the Office of Family Health Services, Virginia Department of Health. Virginia injury mortality data included in this report was provided by the Virginia Center for Health Statistics. National mortality data was obtained from the National Center for Injury Prevention and Control (NCIPC) at The Centers for Disease Control and Prevention (CDC).

Hospitalization data was provided by Virginia Health Information, Inc. (VHI). Deaths or hospitalizations due to injury or poisoning are defined according to the International Classification of Diseases, Ninth Revision (ICD-9) published by the World Health Organization (WHO). Deaths or hospitalizations included in this report were those assigned an underlying cause of injury or

poisoning within the ICD-9 code range from E800-E999. When a hospital admission occurs due to injury in Virginia, ICD-9-CM external cause of injury codes (E-codes) are recorded to reflect the mechanism and intent of injury. Other recorded patient information includes demographic characteristics (age, race, gender), geographic distribution (county of residence, zip codes), length of stay, total charges, and payer information.

The Virginia Center for Health Statistics and the U.S. Census Bureau provided the Virginia population data used to calculate death rates, hospitalization rates, and relative risks. The reader should take into account both the numbers of injury deaths and hospitalizations and the injury death and hospitalization rates for a specific injury or population group when determining an ‘at risk’ group or when deciding how to allocate energies and resources.

Injury results in significant Years of Potential Life Lost (YPLL) or premature death. The YPLL indicator measures years of life lost before the cut-off age of 65 years old. As a rate it is expressed per 100,000 population under age of 65. One YPLL equal one year of life lost prematurely or before age 65. Since a greater percentage of the population die when they are older, causes of death are skewed, reflecting the greater number of deaths in general among the older groups. YPLL uses the same mortality data but treats it differently, to emphasize the premature deaths. YPLL does not include any deaths occurring after age 65 and gives each death a weight according to how much earlier it occurs as compared to the age of 65. YPLL is an excellent indicator of the relative contribution of various causes of premature mortality.

Limitations of the 1998 and 1999 Data Set

The reported hospital discharge data analyzed for this report are good to the extent that submitted E-codes are valid. It is difficult to ascertain in all cases whether medical record coders and physicians have reported the correct E-code for a particular injury. Furthermore, it is believed that some hospitals under-report or over-report these codes. Some hospitals did not submit data for certain quarters. Other hospitals, although submitting data, reported unusually low discharges for various months. The absence of this data certainly influences the rates and frequencies included in this document.

Another limitation of this report is that the numbers of injury reported in this document represent discharges and do not represent individuals. One individual may have been admitted to and discharged from a hospital on several occasions over the same year.

Any record having invalidated E-codes for injury that does not entail the mechanism or intent of injury was deleted from the data set. For instance, a few hospitals wrongly coded the mechanism or intent of injury as a place of injury. Any record for which the patient’s state of residence was not Virginia was deleted. Because patient records only contain residential zip code information, analyzing of injuries occurring in Virginia is based on the patient’s place of residence rather than on the location where the injury occurred.

Within the final 1998 and 1999 E-coded data set containing 82,911 records, some records reported unknown gender, unknown race, and unknown place of residence. These records although submitting frequencies were excluded from appropriate rate calculations because of lack the denominator for those populations.

All rates in this report were calculated using 1998 and 1999 population estimates from both the Virginia Health Statistics and the U.S. Census Bureau. Although the U.S. Census Bureau estimates vary slightly from the Virginia Health Statistics estimates, these slight variations do not affect our results. Additionally, all rates are crude rates and have not been adjusted. Crude rates were chosen because they represent the actual experience of the population and provide data for the allocation of health resources and public health planning. One problem, however, with comparing crude rates of disease between populations is that groups may differ with respect to certain underlying characteristics, such as age, sex, or race that may affect the overall rate of disease.

For the convenience of the user, mortality and morbidity rates are provided for each race, sex, and age grouping in which one or more deaths occurred. However, the user should be aware that rates based on 20 or fewer cases are considered statistically insignificant and unreliable and should therefore regard such rates with caution.

When interpreting the information included in this report, one should consider these limitations and the biases or complications that they may present.

III. Injury Death Analysis 1998

Introduction

The causes of injury deaths are diverse, and their incidence varies considerably across different demographic population groups. Understanding how, where, and to whom the injury deaths are occurring and any contributing factors is critical for setting program and policy priorities.

In Virginia and the country as a whole, injury is the leading cause of death for people between the ages of 1 and 44 and injuries kill more children and adolescents than all diseases combined. In 1998 there were 3,414 deaths in Virginia due to injury. The injury death rate in Virginia for 1998 was 50.5 per 100,000 Virginia population. It is important to note that those dying of injury related deaths represent only a small fraction of the injuries that occur. Non-fatal injuries far surpass fatalities in not only numbers but also in the cost to the citizens of Virginia. Severe injuries such as brain and spinal cord injuries can require a lifetime of care and large costs. The intangible cost of injury death is tremendous, making injury one of the most serious social, economic, and medical problems in our society.

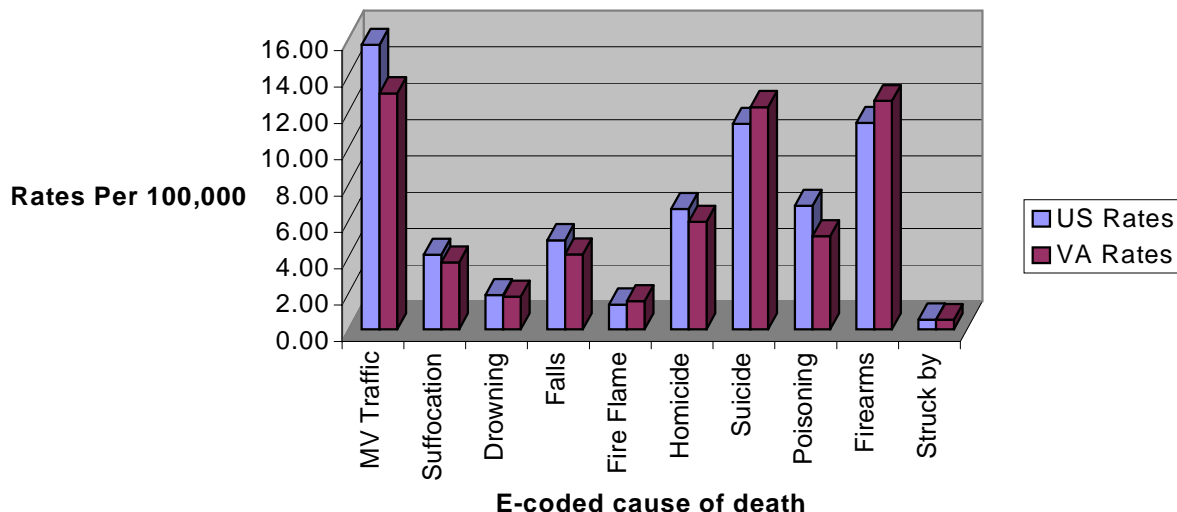
With injury death rates for our children and adolescents so high, compared with all other causes of death, it is important to look at years of productive or potential life lost to measure the effect that injury has on society. In 1998, 73,572 years of productive life were lost due to injury deaths with an average of 21.6 productive years lost (up to age 65 years) per injury.

This chapter provides information on injury deaths as a proportion of all causes of death and general information on frequency of injury deaths, age, gender, race, intent and nature of injury death. As the reader can see, the toll of injury is undeniable. Both the tragedy and the challenge for us all is that the majority of these deaths are preventable.

Comparison of 1998 Virginia Injury Death Rates to 1998 National Injury Death Rates

Virginia's injury death rate for 1998 was 50.5 per 100,000 population, which was 7% lower than the 1998 U.S. rate of 54.36 per 100,000 population. However, Virginia's injury death rates for some selected injuries were higher than the national injury death rates. For example, Virginia's injury death rate for burns resulting from fire/flame was 12% higher than the national injury death rate, Virginia's suicide death rate was 8% higher than the national suicide death rate, and Virginia's firearm death rate was 10% higher than the national firearm death rate. For all of the other causes of injury death, Virginia's rates were the same or lower than the national rates (see Figure 1).

Figure 1: Injury Death Rates By Cause, VA and US, 1998



Injury Death as a Proportion of All Causes of Death

In 1998 Virginia reported 3,414 deaths resulting from injury out of 53,629 total deaths. Overall injury deaths accounted for 6.36% of all deaths occurring in Virginia in 1998. However, as Table 1 shows, injury accounted for a significantly higher proportion of deaths for younger age

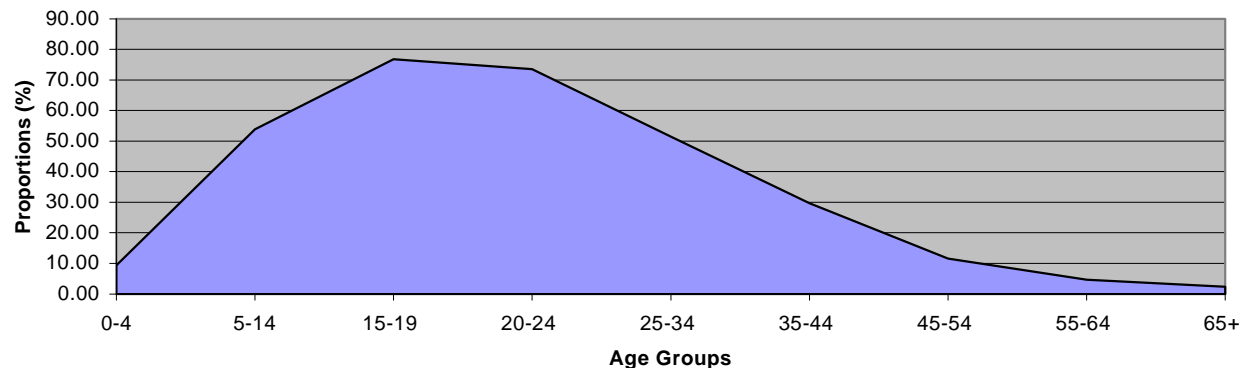
groups. For example, 42.3% of all deaths for children 1-4 years of age, 53.8% of all deaths for children 5-14 years, 76.8% of all deaths for adolescents 15-19 years, and 73.5% of all deaths for those ages 20 to 24 resulted from injury. Figure 2 illustrates the injury death proportion by age.

Table 1: Injury as a Porportion of all Causes of Death, Virginia 1998

Age/Years	Frequency	Column (%)	Total Death	Injury Death (%)	Rate*
0-4	75	2.20	799	9.39	17.23
5-14	85	2.49	158	53.80	8.89
15-19	228	6.68	297	76.77	48.87
20-24	252	7.38	343	73.47	50.15
25-34	506	14.82	984	51.42	48.40
35-44	645	18.89	2170	29.72	57.71
45-54	414	12.13	3590	11.53	46.29
55-64	272	7.97	5867	4.64	46.31
65 and up	936	27.42	39413	2.37	124.24
Total	3413	100.00	53629	6.36	50.50

**Rates are per 100,000 of the total population
There is one death case of unknown age*

Figure 2: Injury as a Proportion of All Causes of Death by Age, VA 1998



Leading Causes of Injury Death

The leading cause of injury deaths for Virginia in 1998, as shown in Figure 3, was motor vehicle traffic injuries (responsible for 26% of all injury deaths). Suicide and homicide were ranked second and third respectively and together were responsible for 36% of all injury deaths. Poison-

ings were responsible for 10% of all injury deaths and falls were responsible for 8% of all injury deaths. These five leading causes of deaths were responsible for 80% of all injury deaths in Virginia in 1998 (See Tables 2 and 3).

Figure 3: The Leading Causes of Injury Death in VA 1998

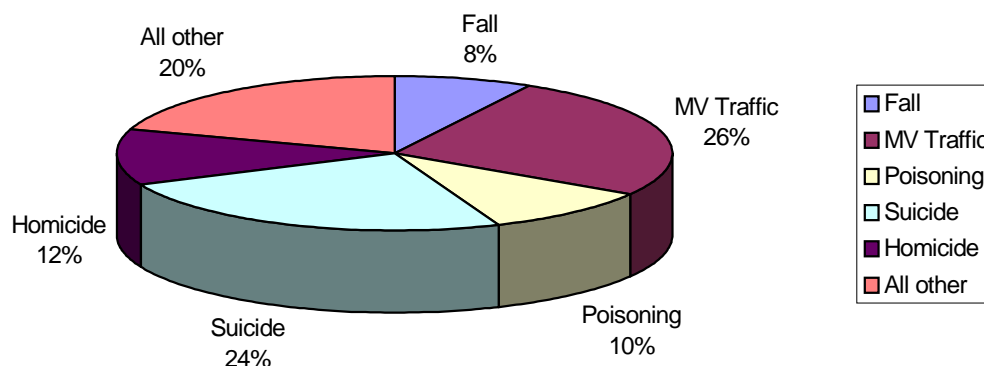


Table 2: Causes of Injury Deaths, Virginia 1998

Cause	Frequency	Column (%)	Rate*
Cut/Pierce	66	1.93	0.98
Drowning/Submersion	122	3.57	1.81
Fall	278	8.14	4.11
Fire/Flame burns	105	3.08	1.55
Hot object burns	2	0.06	0.03
Firearm	849	24.87	12.56
Machinery	29	0.85	0.43
Motor Vehicle Traffic	878	25.72	12.99
Pedal Cyclist	3	0.09	0.04
Pedestrian, Other	11	0.32	0.16
Transport, Other	33	0.97	0.49
Natural Environmental	39	1.14	0.58
Poisoning	347	10.16	5.13
Struck by/Against objects	35	1.03	0.52
Suffocation/Strangulation	249	7.29	3.68
Other causes	368	10.78	5.44
Total	3414	100.00	50.51

**Rates are per 100,000 of the total population*

Table 3: Intent of Injury Deaths, Virginia 1998

	Frequency	Column (%)	Rate*
Unintentional	2147	62.89	31.77
Suicide	827	24.22	12.24
Homicide	400	11.72	5.92
Undetermined	40	1.17	0.59
Total	3414	100.00	50.51

**Rates are per 100,000 of the total population*

Causes and Intent of Injury Deaths by Age

Tables 4 and 5 present the mechanism and intent of injury death by age. Motor vehicle traffic injuries accounted for 151 (39%) of the injury deaths for those ages 19 years and younger, 38% of injury deaths for those aged 20-24 and almost 29% of injury deaths for adults aged 25-34. Firearm injuries accounted for 34.2% of injury deaths for adolescents aged 15-19, 36.5% of injury

deaths for those aged 20-24, and 32.4% of injury deaths for those aged 25-34. For those aged 20-24, unintentional injury accounted for 130 (51.6%) deaths while suicide and homicide accounted for 120 (47%) deaths. The majority of deaths among adults who were 65 years and over were unintentional, accounting for 768 (82%) of the injury deaths.

Table 4: Causes of Injury Death by Age, Virginia 1998

0-4 Years			5-14 Years		15-19 Years		20-24 Years		25-34 Years	
Causes	Frequency	Column (%)	Frequency	Column (%)	Frequency	Column (%)	Frequency	Column (%)	Frequency	Column (%)
Cut/ Pierce	2	2.67	1	1.18	5	2.19	5	1.98	18	3.56
Drowning/ Submersion	12	16.00	13	15.29	11	4.82	10	3.97	19	3.75
Fall	2	2.67	0	0.00	5	2.19	0	0.00	7	1.38
Fire/Flame burns	8	10.67	8	9.41	4	1.75	4	1.59	6	1.19
Hot object burns	0	0.00	0	0.00	0	0.00	0	0.00	1	0.20
Firearm	5	6.67	12	14.12	78	34.21	92	36.51	164	32.41
Machinery	0		0	0.00	0	0.00	0	0.00	3	0.59
Motor Vehicle Traffic	18	24.00	37	43.53	96	42.11	96	38.10	146	28.85
Pedal Cyclist	0	0.00	0	0.00	0	0.00	0	0.00	1	0.20
Pedestrian, other	0	0.00	1	1.18	2	0.88	1	0.40	2	0.40
Transport, other	0		3	3.53	4	1.75	2	0.79	6	1.19
Natural Environmental	1	1.33	0	0.00	0	0.00	0	0.00	3	0.59
Poisoning	1	1.33	0	0.00	5	2.19	13	5.16	67	13.24
Struck by/ against	0	0.00	0	0.00	1	0.44	2	0.79	6	1.19
Suffocation	14	18.67	8	9.41	13	5.70	13	5.16	36	7.11
Other Causes	12	16.00	2	2.36	4	1.76	14	5.56	21	4.15
Total	75	100.00	85	100.00	228	100.00	252	100.00	506	100.00
35-44 Years			45-54 Years		55-64 Years		65 Years and up		Total	
Causes	Frequency	Column (%)	Frequency	Column (%)	Frequency	Column (%)	Frequency	Column (%)	Frequency	Column (%)
Cut/ Pierce	18	2.79	8	1.93	2	0.74	7	0.75	66	1.93
Drowning/ Submersion	22	3.41	16	3.86	9	3.31	10	1.07	122	3.57
Fall	16	2.48	27	6.52	18	6.62	203	21.69	278	8.14
Fire/Flame burns	16	2.48	12	2.90	16	5.88	31	3.31	105	3.08
Hot object burns	1	0.16	0	0.00	0	0.00	0	0.00	2	0.06
Firearm	187	28.99	109	26.33	81	29.78	121	12.93	849	24.87
Machinery	3	0.47	7	1.69	9	3.31	7	0.75	29	0.85
Motor Vehicle Traffic	152	23.57	94	22.71	67	24.63	171	18.27	878	25.72
Pedal Cyclist	0	0.00	2	0.48	0	0.00	0	0.00	3	0.09
Pedestrian, other	2	0.31	0	0.00	0	0.00	3	0.32	11	0.32
Transport, other	6	0.93	7	1.69	1	0.37	4	0.43	33	0.97
Natural Environmental	8	1.24	6	1.45	6	2.21	15	1.60	39	1.14
Poisoning	139	21.55	69	16.67	23	8.46	30	3.21	347	10.16
Struck by/ against	7	1.09	8	1.93	4	1.47	7	0.75	35	1.03
Suffocation	37	5.74	24	5.80	17	6.25	87	9.29	249	7.29
Other Causes	31	4.81	25	6.04	19	6.99	240	25.64	368	10.78
Total	645	100.00	414	100.00	272	100.00	936	100.00	3414	100.00

Table 5: Intent of Injury Death by Age, Virginia 1998

0-4 Years					5-14 Years			
Intent	Frequency	Column (%)	Total Death (%)	Rate	Frequency	Column (%)	Total Death (%)	Rate
Unintentional	52	69.33	6.51	11.95	70	82.35	44.30	7.32
Suicide					8	9.41	5.06	0.84
Homicide	19	25.33	2.38	4.36	7	8.24	4.43	0.73
Undetermined	4	5.33	0.50	0.92				
Total	75	100.00	9.39	17.23	85	100.00	53.80	8.89
15-19 years					20-24 years			
Intent	Frequency	Column (%)	T total Death (%)	Rate	Frequency	Column (%)	Total Death (%)	Rate
Unintentional	129	56.58	43.43	27.65	130	51.59	37.90	25.87
Suicide	50	21.93	16.84	10.72	60	23.81	17.49	11.94
Homicide	47	20.61	15.82	10.07	60	23.81	17.49	11.94
Undetermined	2	0.88	0.67	0.43	2	0.79	0.58	0.40
Total	228	100	76.77	48.87	252	100.00	73.47	50.15
25-34 years					35-44 years			
Intent	Frequency	Column (%)	Total Death (%)	Rate	Frequency	Column (%)	Total Death (%)	Rate
Unintentional	258	50.99	26.22	24.68	344	53.33	15.85	30.78
Suicide	135	26.68	13.72	12.91	204	31.63	9.40	18.25
Homicide	101	19.96	10.26	9.66	83	12.87	3.82	7.43
Undetermined	12	2.37	1.22	1.15	14	2.17	0.65	1.25
Total	506	100.00	51.42	48.40	645	100.00	29.72	57.71
45-54 years					55-64 years			
Intent	Frequency	Column (%)	Total Death (%)	Rate	Frequency	Column (%)	Total Death (%)	Rate
Unintentional	224	54.11	6.24	25.04	171	62.87	2.91	29.11
Suicide	140	33.82	3.90	15.65	85	31.25	1.45	14.47
Homicide	46	11.11	1.28	5.14	15	5.51	0.26	2.55
Undetermined	4	0.97	0.11	0.45	1	0.37	0.02	0.17
Total	414	100.00	11.53	46.29	272	100.00	4.64	46.31
65 years and over					Total			
Intent	Frequency	Column (%)	Total Death (%)	Rate	Frequency	Column (%)	Total Death (%)	Rate
Unintentional	768	82.05	1.95	101.94	2147	62.89	4.00	31.77
Suicide	145	15.49	0.37	19.25	827	24.22	1.54	12.24
Homicide	22	2.35	0.06	2.92	400	11.72	0.75	5.92
Undetermined	1	0.11	0.00	0.13	40	1.17	0.07	0.59
Total	936	100.00	2.37	124.24	3414	100.00	6.37	50.51

There is one case of unknown age

Rates are per 100,000 of the total population

Causes and Intent of Injury Deaths by Gender

Tables 6 and 7 illustrate the mechanism and intent of injury death by gender. In 1998, the injury death rate for the male population (70.5 per 100,000) was 2.25 times higher than the female injury death rate (31.3 per 100,000 population). Males also had 3.69 times higher risk of death due to suicide, 4.94 times higher risk of death due

to firearms, 6.25 times higher risk of death due to striking by/against objects, 2.1 times higher risk of death due to poisonings, and 2.68 times higher risk of death due to homicide. Overall, males are clearly at significantly higher risk of dying as a result of injury than females (see Figures 4 and 5).

Table 6: Causes of Injury Deaths by Gender, Virginia 1998

Causes	Male			Female			Total				
	Frequency	Column (%)	*Rate	Frequency	Column (%)	*Rate	Frequency	Column (%)	*Rate	**RR (M/F)	95% CI
Cut/ Pierce	45	1.93	1.36	21	1.94	0.61	66	1.93	0.98	2.23	1.33,3.75
Drowning/Submersion	91	3.90	2.75	31	2.87	0.90	122	3.57	1.81	3.06	2.04,4.60
Fall	137	5.87	4.14	141	13.04	4.09	278	8.14	4.11	1.01	0.80,1.28
Fire/Flame burns	61	2.61	1.84	44	4.07	1.28	105	3.08	1.55	1.44	0.98,2.13
Hot object buns	2	0.09	0.06	0	0.00	0.00	2	0.06	0.03	0.00	0.00,0.00
Firearm	701	30.05	21.18	148	13.69	4.29	849	24.87	12.56	4.94	4.13,5.89
Machinery	29	1.24	0.88	0	0.00	0.00	29	0.85	0.43	0.00	0.00,0.00
Motor Vehicle Traffic	574	24.60	17.34	304	28.12	8.81	878	25.72	12.99	1.97	1.71,2.26
Pedal Cyclist	3	0.13	0.09	0	0.00	0.00	3	0.09	0.04	0.00	0.00,0.00
Pedestrian, other	8	0.34	0.24	3	0.28	0.09	11	0.32	0.16	2.78	0.74,10.48
Transport, other	28	1.20	0.85	5	0.46	0.14	33	0.97	0.49	5.84	2.25,15.12
Natural Environmental	29	1.24	0.88	10	0.93	0.29	39	1.14	0.58	3.02	1.47,6.20
Poisoning	231	9.90	6.98	116	10.73	3.36	347	10.16	5.13	2.08	1.66,2.59
Struck by/against	30	1.29	0.91	5	0.46	0.14	35	1.03	0.52	6.25	2.43,16.12
Suffocation	162	6.94	4.90	87	8.05	2.52	249	7.29	3.68	1.94	1.50,2.52
Other causes	202	8.66	6.10	166	15.36	4.81	368	10.78	5.44	1.27	1.03,1.56
Total	2333	100.00	70.50	1081	100.00	31.34	3414	100.00	50.51	2.25	2.09,2.42

*Rates are per 100,000 of the Virginia population

**RR is the risk of injury males experience relative to the risk of injury females experience

95% CI which includes one is not significant

Table 7: Intent of Injury Deaths by Gender, Virginia 1998

	Male				Female			
	Frequency	Column (%)	Total Death (%)	Rate*	Frequency	Column (%)	Total Death (%)	Rate*
Unintentional	1372	58.81	5.21	41.46	775	71.69	2.84	22.47
Suicide	645	27.65	2.45	19.49	182	16.84	0.67	5.28
Homicide	288	12.34	1.09	8.70	112	10.36	0.41	3.25
Undetermined	28	1.20	0.11	0.85	12	1.11	0.04	0.35
Total	2333	100.00	8.85	70.50	1081	100.00	3.96	31.34

Total Population

	Frequency	Column (%)	Total Death (%)	Rate*	RR (M/F)	95% CI
Unintentional	2147	62.89	4.00	31.77	1.85	1.69,2.02
Suicide	827	24.22	1.54	12.24	3.69	3.13,4.35
Homicide	400	11.72	0.75	5.92	2.68	2.15,3.33
Undetermined	40	1.17	0.07	0.59	2.43	1.24,4.78
Total	3414	100.00	6.37	50.51	2.25	2.09,2.42

*Rates are per 100,000 of the total population

Figure 4: Injury Death Rates, Females, VA 1998

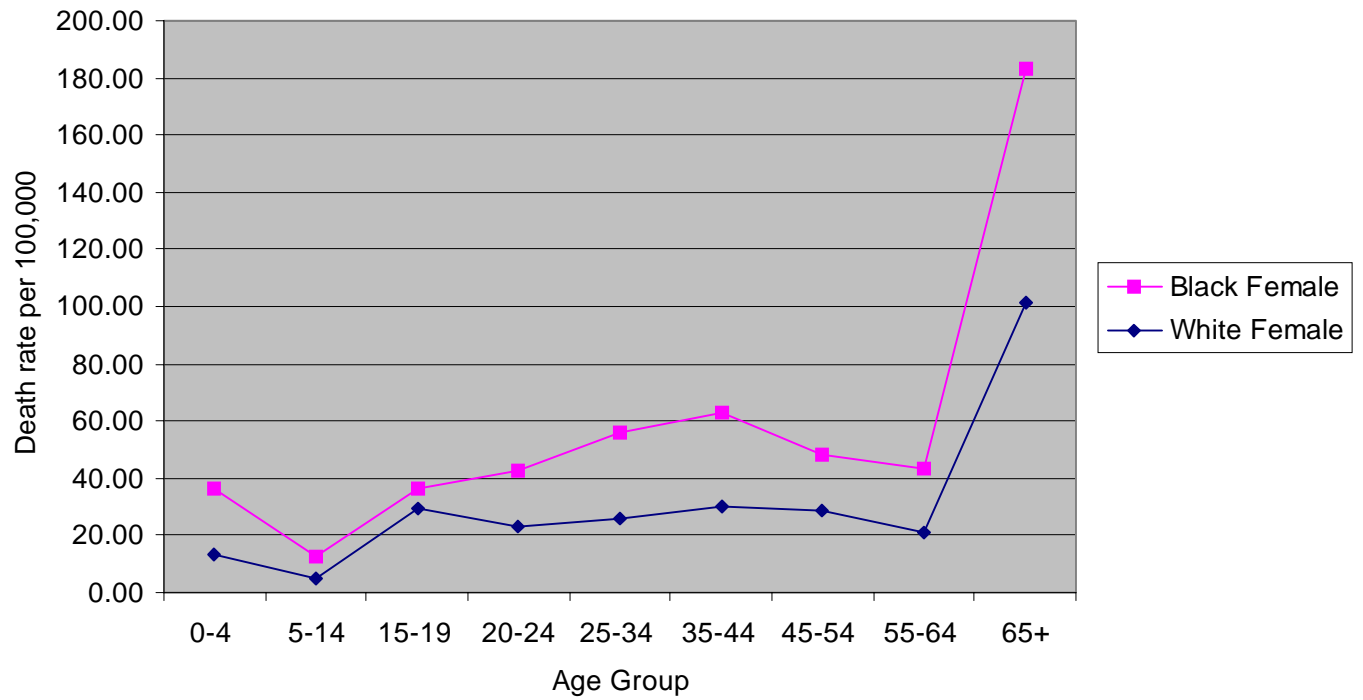
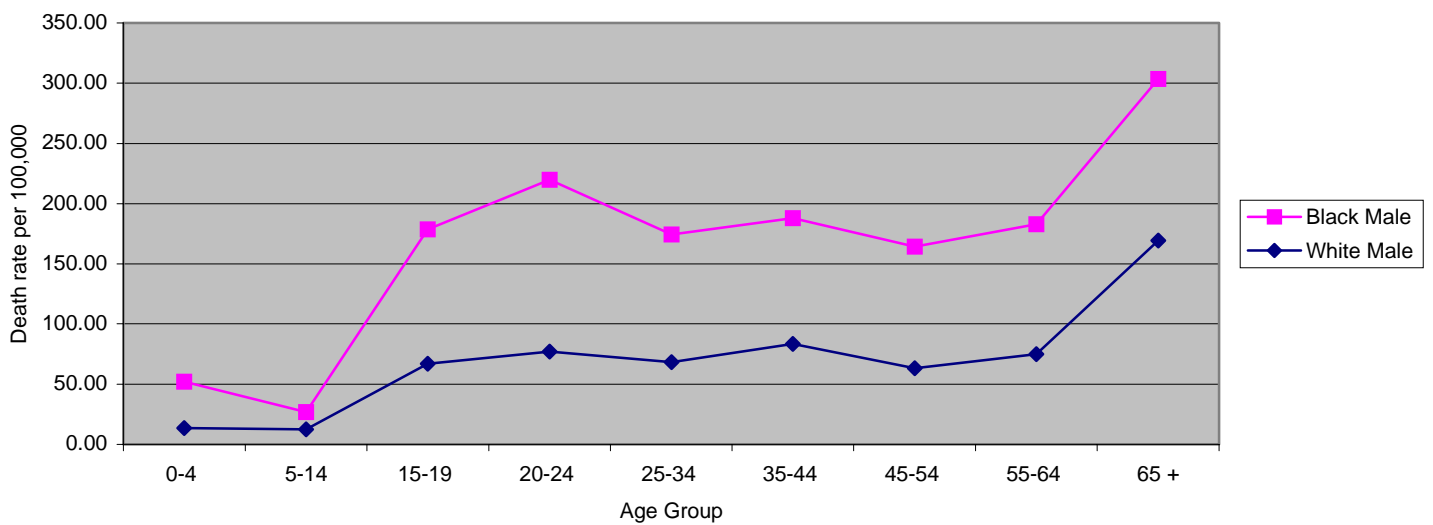


Figure 5: Injury Death Rates, Male, VA 1998



Causes and Intent of Injury Death by Race

Tables 8 and 9 provide the mechanism and intent of injury deaths by race. The injury death rates for Virginia in 1998 was 50.5 per 100,000 population. Blacks had a rate of 57.4 injury deaths per 100,000 population, whites had rate of 52.3 per 100,000 and all other races had a rate of 21.98 per 100,000 population. Despite the decline in the number of black injury deaths from 899 in 1995 to 770 in 1998, blacks continue to show a greater risk for injury fatalities than whites due to firearms (RR=1.4, 95%CI=1.20,1.63), drowning (RR=1.92, 95%CI= 1.31, 2.81), and homicide (RR=5.74, 95%CI=

4.68,7.03). Whites showed a slight increase in number of injury deaths from 2567 in 1995 (50.8 per 100,000) to 2586 in 1998 (52.3 per 100,000). Whites also showed a greater risk for injury fatalities than blacks due to suicide (RR=2.78, 95%CI= 2.18,3.54).

The reader should be cautious in attributing injury distribution to race because many other unanalyzed factors, including socioeconomic status, are involved. The differences in rate by race, however, are consistent year after year and warrant special attention in order to adequately ameliorate injury risks for different populations.

Table 8: Causes of Injury Death by Race, Virginia 1998

	White			Black			Other		
	Frequency	Column (%)	*Rate	Frequency	Column (%)	*Rate	Frequency	Column (%)	Rate
Cut/ Pierce	34	1.31	0.69	31	4.03	2.31	1	1.85	0.41
Drowning/Submersion	77	2.98	1.56	40	5.19	2.98	5	9.26	2.04
Fall	245	9.47	4.96	28	3.64	2.09	5	9.26	2.04
Fire/Flame burn	75	2.90	1.52	29	3.77	2.16	1	1.85	0.41
Hot object burn	1	0.04	0.02	1	0.13	0.07		0.00	0.00
Firearm	606	23.43	12.26	230	29.87	17.16	13	24.07	5.29
Machinery	28	1.08	0.57	1	0.13	0.07		0.00	0.00
Motor Vehicle Traffic	646	24.98	13.07	212	27.53	15.82	18	33.33	7.33
Pedal Cyclist	2	0.08	0.04	1	0.13	0.07		0.00	0.00
Pedestrian, Other	7	0.27	0.14	3	0.39	0.22	1	1.85	0.41
Transport. Other	31	1.20	0.63	2	0.26	0.15		0.00	0.00
Natural Environmental	28	1.08	0.57	10	1.30	0.75	1	1.85	0.41
Poisoning	282	10.90	5.70	65	8.44	4.85		0.00	0.00
Struck by/against	28	1.08	0.57	7	0.91	0.52		0.00	0.00
Suffocation	198	7.66	4.00	43	5.58	3.21	8	14.81	3.26
Other causes	298	11.52	6.03	67	8.70	5.00	1	1.85	0.41
Total	2586	100.00	52.30	770	100.00	57.44	54	100.00	21.98

TOTAL COUNT

Causes	Frequency	Column (%)	*Rate	**RR (B/W)	95% CI
Cut/ Pierce	66	1.93	0.98	3.36	2.07,5.47
Drowning/Submersion	122	3.57	1.81	1.92	1.31,2.81
Fall	278	8.14	4.11	0.42	0.29,0.62
Fire/Flame burn	105	3.08	1.55	1.43	0.93,2.19
Hot object burn	2	0.06	0.03	3.69	0.23,58.97
Firearm	849	24.87	12.56	1.40	1.20,1.63
Machinery	29	0.85	0.43	0.13	0.02,0.97
Motor Vehicle Traffic	878	25.72	12.99	1.21	1.04,1.41
Pedal Cyclist	3	0.09	0.04	1.84	0.17,20.34
Pedestrian, other	11	0.32	0.16	1.58	0.41,6.11
Transport. Other	33	0.97	0.49	0.24	0.06,0.99
Natural Environmental	39	1.14	0.58	1.32	0.64,2.71
Poisoning	347	10.16	5.13	0.85	0.65,1.11
Struck by/against	35	1.03	0.52	0.92	0.40,2.11
Suffocation	249	7.29	3.68	0.80	0.58,1.11
Other causes	368	10.78	5.44	0.83	0.64,1.08
Total	3414	100.00	50.51	1.10	1.01,1.19

There are 8 death cases of unknown race

**Rates are per 100,000 of the total population*

***RR is the risk of injury blacks experience relative to the risk of injury whites experience*

Table 9: Intent of Injury Death by Race, Virginia 1998

White					Black				Other		
Intent	Frequency	Column (%)	Total Death (%)	Rate	Frequency	Column (%)	Total Death (%)	Rate	Frequency	Column (%)	Total Death (%)
Unintentional	1669	64.54	3.99	33.76	446	57.92	3.90	33.27	30	55.56	5.36
Suicide	738	28.54	1.77	14.93	72	9.35	0.63	5.37	17	31.48	3.04
Homicide	153	5.92	0.37	3.09	238	30.91	2.08	17.76	7	12.96	1.25
Undetermined	26	1.01	0.06	0.53	14	1.82	0.12	1.04	0	0.00	0.00
Total	2586	100.00	6.19	52.30	770	100.00	6.74	57.44	54	100.00	9.64
TOTAL											
Intent	Frequency	Column (%)	Total Death (%)	Rate	RR (B/W)	95% CI	RR (W/B)	95% CI			
Unintentional	2147	62.89	3.99	31.77	0.99	0.89,1.09	1.01	0.91,1.13			
Suicide	827	24.22	1.54	12.24	0.36	0.28,0.46	2.78	2.18,3.54			
Homicide	400	11.72	0.74	5.92	5.74	4.68,7.03	0.17	0.14,0.21			
Undetermined	40	1.17	0.07	0.59	1.99	1.04,3.80	0.5	0.26,0.96			
Total	3414	100.00	6.35	50.51	1.1	1.01,1.19	0.91	0.84,0.99			

IV. Injury Hospitalization Analysis 1998 and 1999

Introduction

While injury fatality statistics are an indication of the impact of injury on Virginians, they do not reveal the true extent of the problem because most victims survive their injuries. In 1998 in Virginia, for every death resulting from injury there were almost 12 reported hospitalizations. This section provides information on injury hospitalizations in Virginia in 1998 and 1999. The analysis and discussion are based on those injuries that resulted in an actual admission and discharge from one of Virginia's 101 hospitals.

After an injury-related hospitalization, the patient may be discharged home or to a long-term facility for further rehabilitation. Even those discharged home may experience long-term morbidity or disability and/or decreased quality of life. These additional stages of injury are not captured by this report. Furthermore, this report excludes those injuries that were treated in a medical facility but did not result in a hospital admission. In today's changing health care system, there is substantial pressure to decrease hospital use. As a result, many serious injuries are treated on an outpatient basis yet still require long-term medical follow up (e.g., first or second-degree burns, fractures, muscular injuries, and lacerations). Other injuries are treated on an outpatient basis, in private physicians' offices, at schools and at other venues in communities across Virginia. These injuries are not captured in a collective data set and are not discussed in this report.

This section addresses the frequency of injury hospitalizations for different causes, cost of injury, length of stay, age, gender, race, intent and nature of injury for 1998 and 1999.

The tragedy of injury is that many of the resulting preventable deaths, disabilities and disfigurements were preventable. With injury, there is an immediate connection between prevention and outcome. Many injuries can be prevented entirely, and certainly their severity can be diminished.

Findings and Results

Table 10 reveals the proportion of injury hospitalizations among the total hospital discharges in Virginia in 1998 and 1999. Virginia hospitals reported 82,911 hospital discharges E-coded for injury during 1998 and 1999. Injury accounted for 5.1% of all hospital discharges in 1998-1999. However, for children between 5 and 19 years of age, injury accounted for almost 10% of hospital discharges. The proportion of hospital discharges for injury increased by 6% from 4.8% in 1995 to 5.1% in 1998 and 1999. Possible reasons for this increase may be due to improved reporting and an increase in the occurrence of injury hospitalization.

In 1998 and 1999, falls ranked first as the leading cause of injury hospitalizations, representing 42.9% of the total injury hospitalizations. Poisonings ranked second at 14.7% of all injury hospitalizations, and motor vehicle traffic injuries ranked third at 12.8% (see Figure 6).

While injury accounted for only 5.1% of the total hospitalizations, the cost of injury to Virginians is enormous. Hospitalizations due to injury alone resulted in total hospital charges of \$1,000,504,230 with an average charge of \$12,067.21 per patient treated. Falls, motor vehicle traffic, poisonings, firearms, and striking injuries were responsible for the highest total hospitalization charges. The average length of hospital stay per injury was 5 days. In descending order, the injury causes that resulted in the longest average hospital stays were suffocation, burns as a result of fire/flames, hot objects/ scalds, and firearms (See Table 11 for further information). Table 12 provides more information on charges and length of stay of injury hospitalizations by age groups in Virginia in 1998 and 1999.

The costs of serious non fatal injuries to our society includes not only medical costs, but rehabilitation, attendant care, home modification, and lost income due to injury related disability, pain, suffering, and reduced quality of life. Also, see Appendix A for further information on the Cause Specific Analysis of the Charges and Length of Stay of Injury-Related Hospitalizations by Age Groups.

**Figure 6: Causes of Injury Hospitalizations,
E-Coded Hospital Discharge Data, Virginia 1998 and 1999**

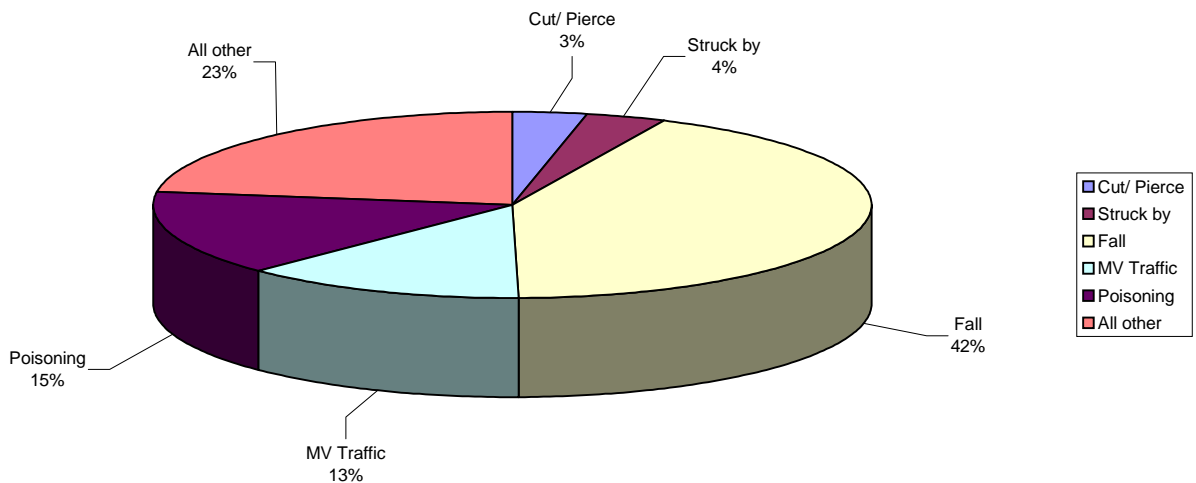


Table 10: Proportion of Injury Hospitalizations among Total Hospital Discharges, Virginia 1998 and 1999

Age	Total	Injury	(%) of Total Hospital Discharge	Rate
0-4	225458	2478	1.10	279.63
5-9	16854	1457	8.64	153.22
10-14	20458	1950	9.53	207.17
15-19	51132	4694	9.18	497.72
20-24	71562	4351	6.08	445.59
25-34	184109	9020	4.90	430.94
35-44	175381	10724	6.11	464.43
45-54	165797	8629	5.20	472.56
55-64	170412	7014	4.12	596.92
65 up	533588	32594	6.11	2132.45
Total	1614751	82911	5.13	608.20

**Rate per 100,00 of the total population*

Table 11: Charges and Length of Stay (LOS) by Cause of Injury, E-Coded Hospital Discharge Data, VA 1998 and 1999

Cause	Frequeny	Total of (%)	Total Charges (\$)	Average Charges (\$)	Average LOS*	Rate**
Poisoning	12180	14.69	76,810,209	6,306	3.1	89.42
Natural Environmental	1783	2.15	13,034,302	7,310	3.8	13.10
Cut/ Pierce	2699	3.26	20,954,706	7,764	3.7	19.79
Overexerertion	1140	1.37	9,250,087	8,114	3.3	8.35
Drowning/Submersion	135	0.16	1,101,873	8,162	3.0	0.98
Pedal Cyclist	602	0.73	5,455,079	9,062	3.4	4.44
Struck by/against	2946	3.55	27,104,396	9,200	3.7	21.63
Hot object burns	683	0.82	7,163,169	10,488	6.4	5.03
Transport, other	1103	1.33	11,653,760	10,566	3.9	8.10
Fall	35629	42.97	421,481,974	11,830	5.5	261.38
Machinery	577	0.70	7,200,785	12,480	4.1	4.22
Pedestrian, other	120	0.14	1,849,342	15,411	5.4	0.88
Motor Vehicle Traffic	10569	12.75	165,688,406	15,677	4.9	77.56
Fire/Flame burns	533	0.64	8,790,087	16,492	7.8	3.93
Firearm	1369	1.65	26,765,837	19,551	5.6	10.05
Total	82911	100	1,000,504,230	12,067	5.1	608.2

Table 12: Charges for Injury Hospitalizations by Age, E-Coded Hospital Discharge Data, Virginia 1998 and 1999

Age	Frequency	Total Charges	Average Charges	Total LOS	Average LOS
0-4	2478	19,130,666	7,720	8489	3.4
5-9	1457	9,892,129	6,789	4032	2.8
10-14	1950	15,769,130	8,087	6140	3.1
15-19	4694	49,563,099	10,559	17521	3.7
20-24	4351	50,751,136	11,664	17478	4.0
25-34	9020	93,353,696	10,350	33110	3.7
35-44	10724	119,246,956	11,120	46826	4.4
45-54	8629	108,112,264	12,529	42978	5.0
55-64	7014	98,030,609	13,976	38787	5.5
65 and up	32594	436,654,545	13,397	208676	6.4
TOTAL	82911	1,000,504,230	12,067	424037	5.1

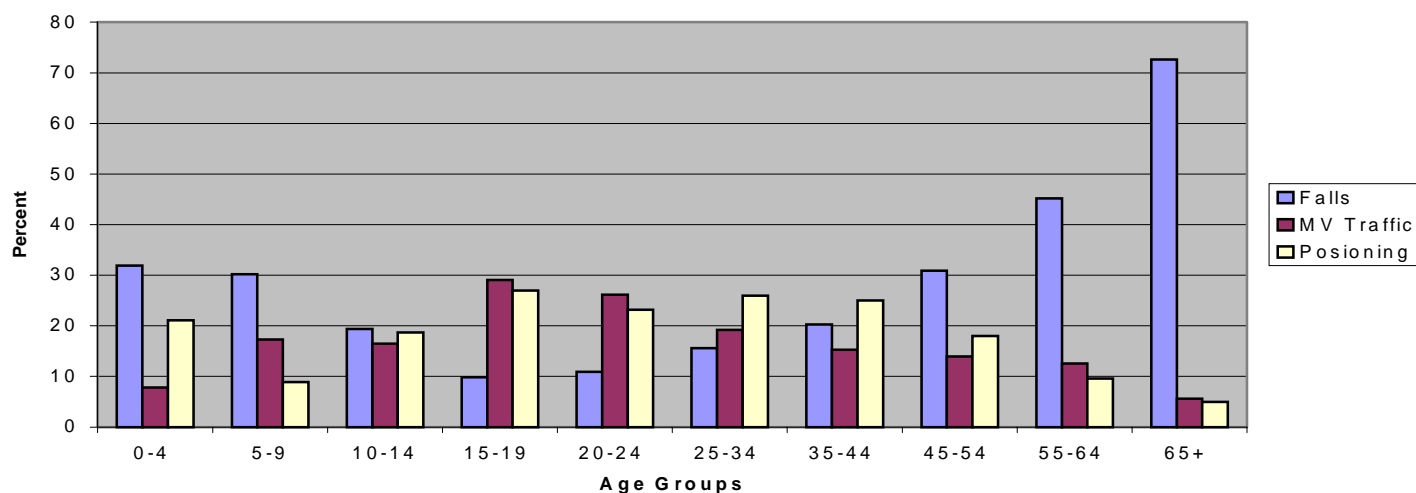
**LOS is the length of stay in Days.*

Causes and Intent of Injury Hospitalizations by Age

Tables 13 and 14 display the mechanism and intent of injury by age groups in Virginia in 1998 and 1999. Falls accounted for 23,668 or 72.6% of the injury hospitalizations for those ages 65 years and over. Motor vehicle traffic injuries were ranked as the leading cause of injury hospitalizations for those aged 15-24 years. Poisoning was ranked as the leading cause of injury hospitalizations for those aged 25-44 years. They accounted for 29.1% of injury hospitalizations for adolescents aged 15-19 years and 26.2% of injury hospitalizations for those aged 20-24.

Across all ages, unintentional causes accounted for a larger proportion of injury hospitalizations than self-inflicted injuries and assaults. The majority of hospitalizations among adults 65 years and over were unintentional and accounted for 30,557 (94%) of injury hospitalizations. For those aged 20-24, unintentional injuries accounted for 2,692 (62%) while self-inflicted and assault accounted for 1,467 (34%) of the hospitalizations. Figure 7 illustrates the age distribution of leading causes of injury hospitalizations.

Figure 7: Leading Causes of Injury Hospitalizations by Age Group, E-Coded Hospital Discharge Data, VA 1998 and 1999



**Table 13: External Causes of Injury by Age,
E-Coded Hospital Discharge Data, VA 1998 and 1999**

	0-4Years			5-9Years			10-14Years		
Causes	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Cut/ Pierce	53	2.14	6.01	49.0	3.36	5.15	77.0	3.95	8.19
Drowning/Submersion	27	1.09	3.04	30.0	2.06	3.16	12.0	0.62	1.27
Fall	790	31.88	89.11	440.0	30.20	46.25	378.0	19.38	40.18
Fire/Flame burn	26	1.05	2.95	20.0	1.37	2.11	21.0	1.08	2.22
Hot object burn	142	5.73	16.04	22.0	1.51	2.32	13.0	0.67	1.38
Firearm	9	0.36	1.01	16.0	1.10	1.68	35.0	1.79	3.72
Machinery	5	0.20	0.57	9.0	0.62	0.95	9.0	0.46	0.96
Motor Vehicle Traffic	192	7.75	21.67	252.0	17.30	26.48	322.0	16.51	34.24
Pedal Cyclist	14	0.56	1.59	110.0	7.55	11.58	141.0	7.23	14.95
Pedestrian, other	8	0.32	0.90	13.0	0.89	1.37	7.0	0.36	0.74
Transport, other	27	1.09	3.01	31.0	2.13	3.25	70.0	3.59	7.47
Natural/ Environmental	99	4.00	11.17	91.0	6.25	9.55	70.0	3.59	7.42
Overexertion	4	0.16	0.46	8.0	0.55	0.84	32.0	1.64	3.40
Poisoning	523	21.11	59.21	130.0	8.92	13.65	364.0	18.67	38.61
Struck by/against	86	3.47	9.73	103.0	7.07	10.83	177.0	9.08	18.79
Suffocation	49	1.98	5.53	7.0	0.48	0.74	15.0	0.77	1.59
Other causes	424	17.11	47.62	126.0	8.65	13.29	207.0	10.62	22.02
Total	2478	100.00	279.62	1457.0	100.00	153.20	1950.0	100.00	207.15
	15-19Years			20-24Years			25-34Years		
Causes	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Cut/ Pierce	259	5.52	27.43	355	8.16	36.33	617	6.84	29.48
Drowning/Submersion	13	0.28	1.39	7	0.16	0.71	11	0.12	0.53
Fall	459	9.78	48.67	474	10.89	48.65	1409	15.62	67.32
Fire/Flame burn	28	0.60	2.96	25	0.57	2.55	77	0.85	3.68
Hot object burn	23	0.49	2.44	43	0.99	4.37	77	0.85	3.68
Firearm	250	5.33	26.53	313	7.19	31.95	320	3.55	15.29
Machinery	23	0.49	2.43	48	1.10	4.91	96	1.06	4.59
Motor Vehicle Traffic	1366	29.10	144.80	1141	26.22	116.79	1735	19.24	82.90
Pedal Cyclist	38	0.81	4.04	21	0.48	2.17	40	0.44	1.91
Pedestrian, other	5	0.11	0.53	4	0.09	0.40	13	0.14	0.62
Transport, other	101	2.15	10.71	69	1.59	7.10	163	1.81	7.79
Natural/ Environmental	47	1.00	4.97	66	1.52	6.78	178	1.97	8.50
Overexertion	61	1.30	6.47	53	1.22	5.46	158	1.75	7.55
Poisoning	1268	27.01	134.55	1008	23.17	103.17	2344	25.99	111.99
Struck by/against	330	7.03	34.99	249	5.72	25.45	535	5.93	25.56
Suffocation	12	0.26	1.28	9	0.21	0.91	25	0.28	1.19
Other causes	411	8.76	43.52	466	10.71	47.87	1222	13.55	58.37
Total	4694	100.00	497.71	4351	100.00	445.57	9020	100.00	430.96

Table 13: Continued

45-54Years				35-44Years			55-64Years		
Causes	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Cut/ Pierce	320	3.71	17.55	554	5.17	24.03	165	2.35	14.04
Drowning/Submersion	6	0.07	0.33	8	0.07	0.35	8	0.11	0.68
Fall	2664	30.87	146.09	2178	20.31	94.47	3169	45.18	269.70
Fire/Flame burn	67	0.78	3.69	103	0.96	4.48	46	0.66	3.91
Hot object burn	76	0.88	4.16	84	0.78	3.64	62	0.88	5.28
Firearm	94	1.09	5.16	213	1.99	9.27	45	0.64	3.83
Machinery	95	1.10	5.21	139	1.30	5.99	69	0.98	5.87
Motor Vehicle Traffic	1209	14.01	66.31	1644	15.33	71.36	880	12.55	74.89
Pedal Cyclist	70	0.81	3.85	75	0.70	3.26	42	0.60	3.57
Pedestrian, other	17	0.20	0.92	12	0.11	0.51	6	0.09	0.51
Transport, other	182	2.11	9.96	190	1.77	8.24	95	1.35	8.08
Natural/ Environmental	243	2.82	13.30	292	2.72	12.65	171	2.44	14.55
Overexertion	153	1.77	8.38	204	1.90	8.84	143	2.04	12.17
Poisoning	1553	18.00	85.18	2678	24.97	116.11	676	9.64	57.53
Struck by/against	312	3.62	17.08	580	5.41	25.12	184	2.62	15.66
Suffocation	29	0.34	1.59	43	0.40	1.86	26	0.37	2.21
Other causes	1539	17.84	83.79	1727	16.10	74.26	1227	17.49	104.41
Total	8629	100.00	472.55	10724	100.00	464.43	7014	100.00	596.93

65 and up				TOTAL		
Causes	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Cut/ Pierce	250	0.77	16.39	2699	3.26	19.79
Drowning/Submersion	13	0.04	0.86	135	0.16	0.98
Fall	23668	72.61	1549.04	35629	42.97	261.38
Fire/Flame burn	120	0.37	7.85	533	0.64	3.93
Hot object burn	141	0.43	9.24	683	0.82	5.03
Firearm	74	0.23	4.82	1369	1.65	10.05
Machinery	84	0.26	5.49	577	0.70	4.22
Motor Vehicle Traffic	1828	5.61	119.63	10569	12.75	77.56
Pedal Cyclist	51	0.16	3.35	602	0.73	4.44
Pedestrian, other	35	0.11	2.27	120	0.14	0.88
Transport, other	175	0.54	11.42	1103	1.33	8.10
Natural/ Environmental	526	1.61	34.41	1783	2.15	13.10
Overexertion	324	0.99	21.20	1140	1.37	8.35
Poisoning	1636	5.02	107.15	12180	14.69	89.42
Struck by/against	390	1.20	25.52	2946	3.55	21.63
Suffocation	166	0.51	10.86	381	0.46	2.80
Other causes	3113	9.55	202.93	10462	12.62	76.60
Total	32594	100.00	2132.43	82911	100.00	608.20

**Table 14: Intent of Injury by Age Group,
E-Coded Hospital Discharge Data, VA 1998 and 1999**

INTENT	0-4 Years	Column (%)	5-9 Years	Column (%)	10-14 Years	Column (%)	15-19 Years	Column (%)
Unintentional	2145	86.56	1377	94.51	1522	78.05	2981	63.51
Self inflicted	54	2.18	16	1.10	290	14.87	1117	23.80
Assault	102	4.12	18	1.24	48	2.46	392	8.35
Undetermined	177	7.14	46	3.16	90	4.62	204	4.35
Total	2478	100.00	1457	100.00	1950	100.00	4694	100.00

INTENT	20-24 Years	Column (%)	25-34 Years	Column (%)	35-44 Years	Column (%)	45-54 Years	Column (%)
Unintentional	2692	61.87	5739	63.63	7168	66.84	6521	75.57
Self inflicted	942	21.65	2054	22.77	2154	20.09	1138	13.19
Assault	525	12.07	774	8.58	731	6.82	329	3.81
Undetermined	192	4.41	453	5.02	671	6.26	641	7.43
Total	4351	100.00	9020	100.00	10724	100.00	8629	100.00

INTENT	55-64 Years	Column (%)	65 and Over	Column (%)	TOTAL	Column (%)	Rate
Unintentional	5951	84.84	30557	93.75	66653	80.39	489.0
Self inflicted	380	5.42	729	2.24	8874	10.70	65.2
Assault	107	1.53	191	0.59	3217	3.88	23.6
Undetermined	576	8.21	1117	3.43	4167	5.03	30.4
Total	7014	100.00	32594	100.00	82911	100.00	608.2

Causes and Intent of Injury Hospitalizations by Gender

Unlike deaths, injury hospitalizations in 1998 and 1999 were more common among females (44,126 or 53%) than males (38,781 or 47%). Rates calculated per 100,000 Virginia residents showed that women have significantly higher rates of hospitalizations for falls and poisonings than men (RR= 1.75 and 1.46 respectively).

Although men were hospitalized less frequently than women, they were more than twice as likely as women to be hospitalized for cutting/piercing injuries (RR=2.35). Men were also three times more likely to be hospital-

ized for striking injury (RR=3.4) and bicycle injuries (RR=3.4). Men were also almost six times more likely to be hospitalized for a firearm injury than were women (RR=5.82). See table 15 for further information.

When looking at relative risk across gender, females are at higher risk for unintentional and self-inflicted injury hospitalizations (RR= 1.13 and 1.5 respectively). Males are at higher risk for assault injury hospitalizations than females (RR=3.39). See Table 16 and Figure 8 for further information.

**Table 15: Causes of Injury Hospitalizations by Gender,
E-Coded Hospital Discharge Data, VA 1998 and 1999**

FEMALES				MALES		
Causes	Frequency	Column (%)	*Rate	Frequency	Column (%)	*Rate
Cut/ Pierce	887	2.01	12.76	1812	4.67	27.18
Drowning/Submersion	43	0.10	0.64	92	0.24	1.36
Fall	23006	52.14	330.40	12622	32.55	189.33
Fire/Flame burn	184	0.42	2.64	349	0.90	5.24
Hot object burn	300	0.68	4.32	383	0.99	5.75
Firearm	210	0.48	3.04	1159	2.99	17.39
Machinery	76	0.17	1.08	501	1.29	7.52
Motor Vehicle Traffic	4608	10.44	66.20	5959	15.37	89.42
Pedal Cyclist	141	0.32	2.01	461	1.19	6.93
Pedestrian, other	45	0.10	0.64	75	0.19	1.13
Transport, other	437	0.99	6.26	666	1.72	9.97
Natural/Environmental	844	1.91	12.13	939	2.42	14.07
Overexertion	533	1.21	7.64	607	1.57	9.13
Poisoning	7333	16.62	105.35	4847	12.50	72.73
Struck by/ against	695	1.58	9.96	2251	5.80	33.76
Suffocation	169	0.38	2.42	211	0.54	3.19
Other causes	4615	10.46	66.08	5847	15.08	87.52
Total	44126	100.00	633.64	38781	100.00	581.61

TOTAL							
Causes	Frequency	Column (%)	*Rate	**RR (M/F)	95%CI	**RR (F/M)	95%CI
Cut/ Pierce	2699	3.26	19.79	2.35	2.1,2.64	0.47	0.42,0.53
Drowning/Submersion	135	0.16	0.98	2.42	1.42,4.14	0.46	0.54,0.76
Fall	35629	42.97	261.38	0.57	0.56,0.59	1.75	1.69,1.80
Fire/Flame burn	533	0.64	3.93	2.06	1.58,2.66	0.50	0.39,0.65
Hot object burn	683	0.82	5.03	1.35	1.09,1.68	0.75	0.61,0.93
Firearm	1369	1.65	10.05	5.82	4.71,7.18	0.18	0.15,0.22
Machinery	577	0.70	4.22	7.115	5.01,10.12	0.15	0.10,0.21
Motor Vehicle Traffic	10569	12.75	77.56	1.35	1.28,1.43	0.74	0.70,0.78
Pedal Cyclist	602	0.73	4.44	3.44	2.63,4.50	0.30	0.23,0.38
Pedestrian, other	120	0.14	0.88	1.815	1.04,3.24	0.56	0.33,0.97
Transport, other	1103	1.33	8.10	1.59	1.34,1.89	0.63	0.53,0.75
Natural/Environmental	1783	2.15	13.10	1.17	1.03,1.33	0.87	0.76,0.99
Overexertion	1140	1.37	8.35	1.19	1.01,1.41	0.84	0.72,0.99
Poisoning	12180	14.69	89.42	0.69	0.66,0.73	1.46	1.38,1.54
Struck by/ against	2946	3.55	21.63	3.38	3.00,3.82	0.30	0.26,0.34
Suffocation	381	0.46	2.80	1.31	0.98,1.75	0.78	0.59,1.04
Other causes	10462	12.62	76.60	1.34	1.27,1.43	0.75	0.71,0.79
Total	82911	100.00	608.20	0.92	0.90,0.94	1.09	1.07,1.11

There are 4 cases of unknown gender, 1 Fall, 2 Motor VehicleTraffic, and 1 Suffocation

Rates were calculated per 100,000 VA residents

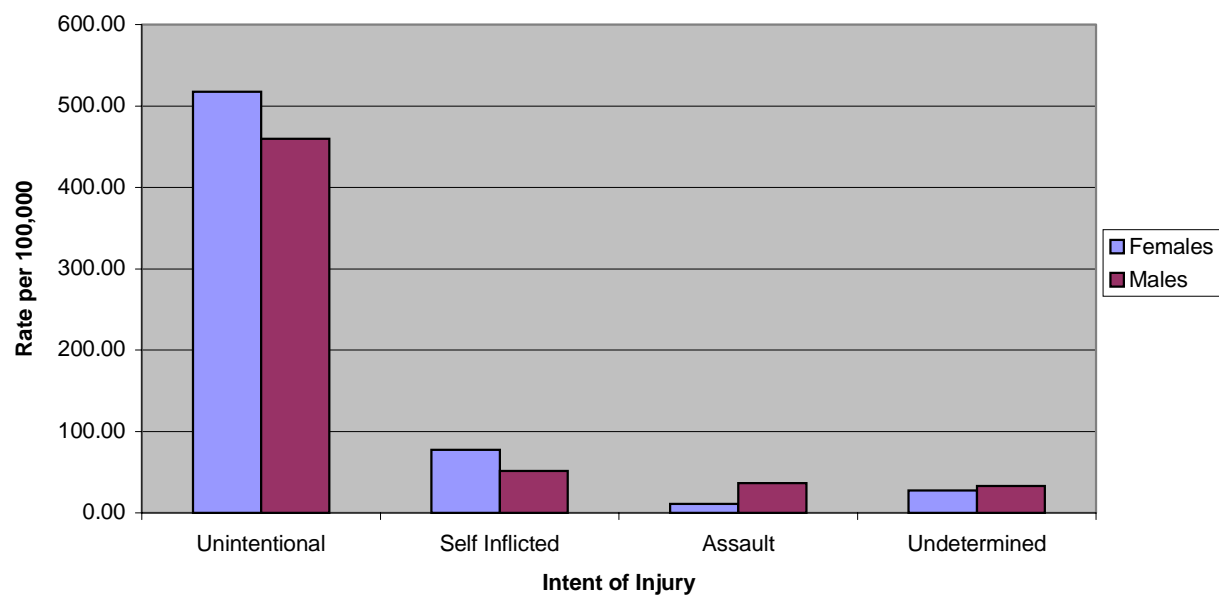
RR = Relative Risks with 95% Confidence Interval(CI) that include 1.0 are considered insignificant

**Table 16: Intent of Injury by Gender,
E-Coded Hospital Discharge Data, VA 1998 and 1999**

Females				Males		
Intent	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Unintentional	36009	81.60	517.2	30641	79.01	459.6
Self Inflicted	5415	12.27	77.8	3458	8.92	51.9
Assault	758	1.72	10.9	2459	6.34	36.9
Undetermined	1944	4.41	27.7	2223	5.73	33.2
Total	44126	100.00	633.6	38781	100.00	581.6

Total				Relative Risk			
Intent	Frequency	Column (%)	Rate	RR (M/F)	95% CI	RR (F/M)	95% CI
Unintentional	66653	80.39	489.0	0.89	0.87,0.91	1.13	1.10,1.15
Self Inflicted	8874	10.70	65.2	0.67	0.63,0.71	1.50	1.42,1.59
Assault	3217	3.88	23.6	3.39	3.02,3.81	0.30	0.27,0.33
Undetermined	4167	5.03	30.4	1.26	1.13,1.41	0.80	0.72,0.89
Total	82911	100.00	608.2	0.92	0.90,0.94	1.09	1.07,1.11

**Figure 8: Intent of Injury Hospitalizations by Gender,
E-Coded Hospital Discharge Data, VA 1998 and 1999**



Causes and Intent of Injury Hospitalizations by Race

Table 17 illustrates the causes of injury hospitalizations by race in Virginia in 1998 and 1999. Whites accounted for 69.9% of the injury discharges with a rate of 584.2 per 100,000 of white population in Virginia, while blacks accounted for 16.2% of the injury discharges (Rate =496.9 per 100,000 of black population in VA). Hispanics accounted for 1.7% of the total injury discharges (Rate=276.9 per 100,000) and other races accounted for 2.4% (Rate =388.8 per 100,000). Almost 10% of the injury discharges reported unknown race.

For whites, blacks, and others, the three leading causes of injuries are the same: falls, poisonings, and motor vehicle traffic. When looking at relative risks and comparing to blacks, whites have a higher risk of being hospitalized for falls (RR=2.24, 95%CI= 2.12,2.35) and other transport (RR=3.30, 95%CI= 2.37,4.61). Blacks, on the other hand, have a higher risk of being hospitalized for drowning (RR=2.38, 95%CI = 1.37, 4.15), burns due to hot objects (RR=2.50, 95%CI=1.99,3.14), fire-arms (RR=5.92, 95%CI= 5.01,6.95), and striking by or against objects (RR=1.51, 95%CI=1.34,1.71). See Figure 9.

When looking at relative risk calculations across race, blacks have a higher risk for assault injury hospitalizations than whites (RR=4.99, 95% CI=4.49,5.54) while whites have a higher risk for self-inflicted injury hospitalizations than blacks (RR=1.26, 95%CI= 1.16,1.38). See Table 18 and Figure 10 for further information.

**Table 17: Causes of Injury Hospitalizations by Race,
E-Coded Hospital Discharge Data, VA. 1998 & 1999**

White				Black			Hispanic			Other	
Causes	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate	Frequency	Column (%)
Cut/ Pierce	1618	2.79	16.33	725	5.40	26.85	111	7.69	21.49	72	3.6
Drowning/Submersion	64	0.11	0.64	41	0.31	1.53	4	0.28	0.75	3	0.1
Fall	27239	46.99	274.53	3336	24.83	123.41	410	28.39	78.54	795	39.9
Fire/Flame burns	339	0.58	3.43	158	1.18	5.83	3	0.21	0.55	10	0.5
Hot object burns	365	0.63	3.69	245	1.82	9.08	10	0.69	1.94	16	0.8
Firearm	487	0.84	4.89	775	5.77	28.70	15	1.04	2.94	14	0.7
Machinery	406	0.70	4.10	98	0.73	3.64	28	1.94	5.34	9	0.4
Motot Vehicle Traffic	6927	11.95	69.81	2256	16.79	83.51	266	18.42	51.22	254	12.7
Pedal Cyclist	414	0.71	4.16	112	0.83	4.13	14	0.97	2.69	18	0.9
Pedestrian, other	76	0.13	0.77	28	0.21	1.02	2	0.14	0.40	7	0.3
Transport, other	917	1.58	9.26	76	0.57	2.83	12	0.83	2.30	8	0.4
Natural/ Environmental	1337	2.31	13.49	242	1.80	8.93	14	0.97	2.69	34	1.7
Overexertion	809	1.40	8.18	216	1.61	8.01	16	1.11	3.04	23	1.1
Poisoning	8236	14.21	83.04	2144	15.96	79.35	185	12.81	35.61	370	18.5
Struck by/ against	1801	3.11	18.14	739	5.50	27.36	82	5.68	15.76	52	2.6
Suffocation	255	0.44	2.58	76	0.57	2.82	3	0.21	0.60	8	0.4
Other causes	6676	11.52	67.24	2166	16.12	80.00	269	18.63	50.95	297	14.9
Total	57966	100.00	584.22	13433	100.00	496.90	1444	100.00	276.88	1990	100.0
Unknown				Total							
Causes	Frequency	Column (%)	Frequency	Column (%)	Rate	RR (B/W)	95%CI	RR (W/B)	95%CI		
Cut/ Pierce	173	2.14	2699	3.26	19.79	1.65	1.45,1.86	0.61	0.54,0.69		
Drowning/Submersion	23	0.28	135	0.16	0.98	2.38	1.37,4.15	0.44	0.25,0.78		
Fall	3849	47.65	35629	42.97	261.38	0.45	0.43,0.47	2.24	2.12,2.35		
Fire/Flame burns	23	0.28	533	0.64	3.93	1.74	1.33,2.27	0.59	0.45,0.77		
Hot object burns	47	0.58	683	0.82	5.03	2.50	1.99,3.14	0.41	0.32,0.51		
Firearm	78	0.97	1369	1.65	10.05	5.92	5.01,6.95	0.18	0.16,0.21		
Machinery	36	0.45	577	0.70	4.22	0.88	0.65,1.21	1.14	0.83,1.55		
Motot Vehicle Traffic	866	10.72	10569	12.75	77.56	1.19	1.12,1.28	0.84	0.79,0.90		
Pedal Cyclist	44	0.54	602	0.73	4.44	0.99	0.74,1.34	1.01	0.75,1.36		
Pedestrian, other	7	0.09	120	0.14	0.88	1.65	0.87,3.15	0.75	0.41,1.37		
Transport, other	90	1.11	1103	1.33	8.10	0.31	0.22,0.43	3.30	2.37,4.61		
Natural/ Environmental	156	1.93	1783	2.15	13.10	0.67	0.55,0.81	1.51	1.24,1.83		
Overexertion	76	0.94	1140	1.37	8.35	0.98	0.79,1.21	1.03	0.83,1.27		
Poisoning	1245	15.41	12180	14.69	89.42	0.96	0.89,1.02	1.05	0.99,1.13		
Struck by/ against	272	3.37	2946	3.55	21.63	1.51	1.34,1.71	0.67	0.59,0.76		
Suffocation	39	0.48	381	0.46	2.80	1.11	0.77,1.59	0.93	0.65,1.34		
Other causes	1054	13.05	10462	12.62	76.60	1.22	1.13,1.30	0.83	0.78,0.89		
Total	8078	100.00	82911	100.00	608.20	0.85	0.83,0.87	1.18	1.15,1.21		

Figure 9: The Leading Causes of Injury Hospitalizations by Race, E-Coded Hospital Discharge Data, VA 1998 and 1999

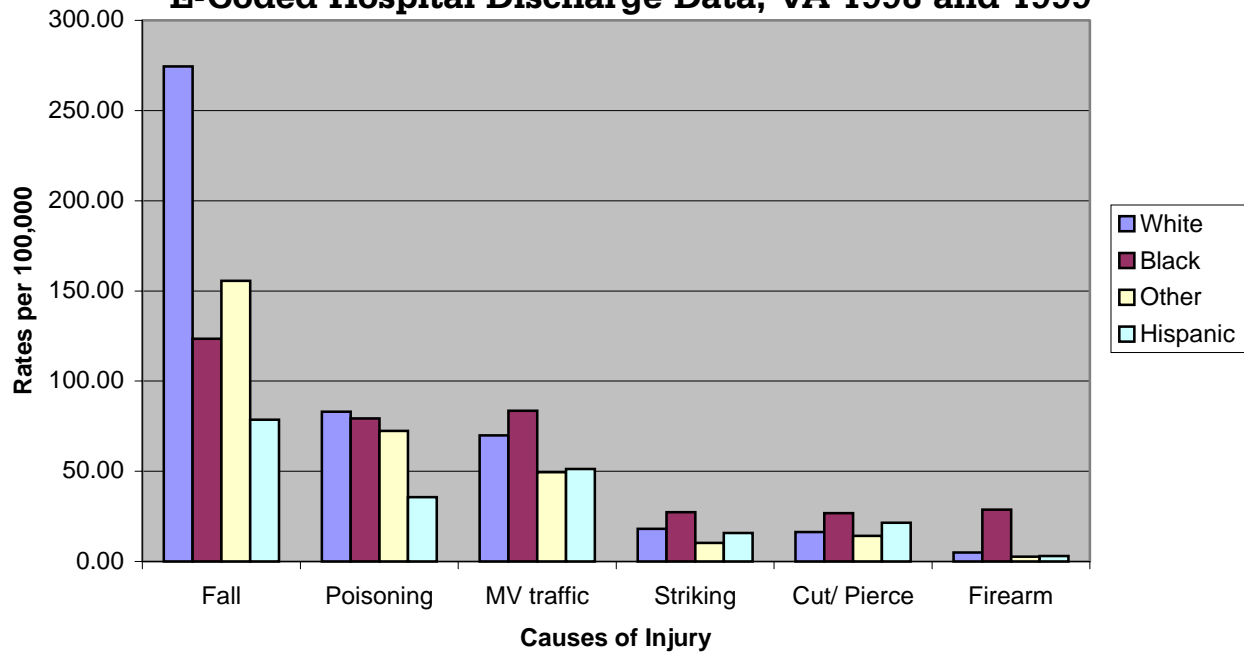
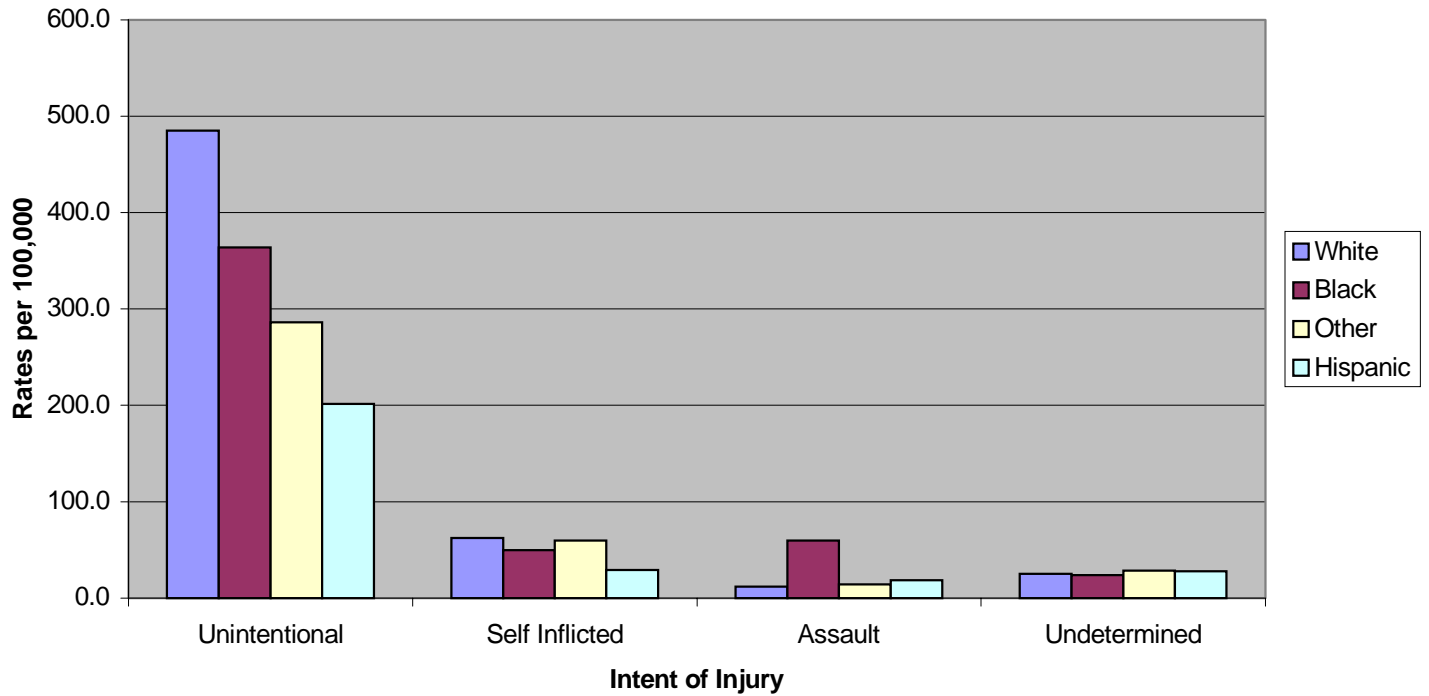


Table 18: Intent of Injury Hospitalizations by Race, E-Coded Hospital Discharge Data, VA 1998 & 1999

White				Black		
Intent	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Unintentional	48098	82.98	484.8	9827	73.16	363.5
Self Inflicted	6187	10.67	62.4	1346	10.02	49.8
Assault	1184	2.04	11.9	1614	12.02	59.8
Undetermined	2497	4.31	25.1	646	4.81	23.8
Total	57966	100.00	584.2	13433	100.00	496.9
Hispanic				Other		
Intent	Frequency	Column (%)	Rate	Frequency	Column (%)	Rate
Unintentional	1049	72.65	201.4	1462	73.47	286.1
Self Inflicted	152	10.53	29.3	306	15.38	60.0
Assault	96	6.65	18.5	71	3.57	14.0
Undetermined	147	10.18	27.7	151	7.59	28.7
Total	1444	100.00	276.9	1990	100.00	388.8
Unknown			Total			
Intent	Frequency	Column (%)	Frequency	Column (%)	Rate	RR (B/M)
Unintentional	6217	76.96	66653	80.39	489.0	0.75
Self Inflicted	883	10.93	8874	10.70	65.2	0.80
Assault	252	3.12	3217	3.88	23.6	4.99
Undetermined	726	8.99	4167	5.03	30.4	1.16
Total	8078	100.00	82911	100.00	608.2	0.85
				Total		
				Intent	95% CI	RR (W/B) 95% CI
				Unintentional	0.73,0.78	1.34 1.30,1.38
				Self Inflicted	0.73,0.87	1.26 1.16,1.38
				Assault	4.49,5.54	0.21 0.19,0.23
				Undetermined	1.00,1.34	0.95 0.83,1.1
				Total	0.83,0.87	1.18 1.15,1.21

**Figure 10: Intent of Injury Hospitalizations by Race,
E-Coded Hospital Discharge Data, VA 1998 and 1999**



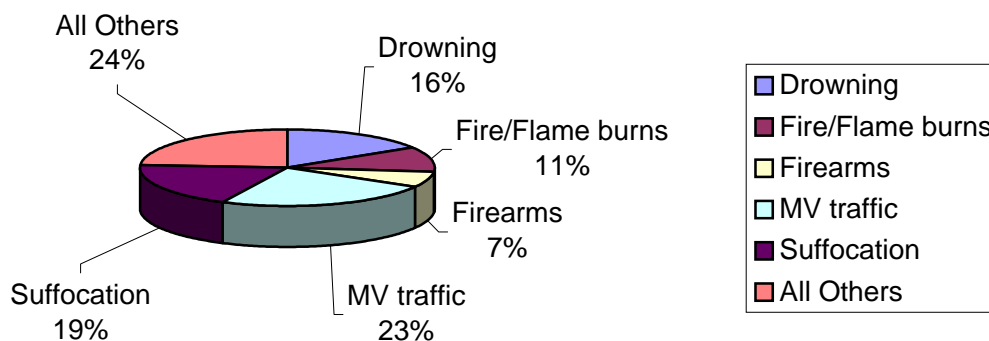
V. Age Specific Analysis in Virginia for 1998 and 1999

Children Under 5 Years of Age

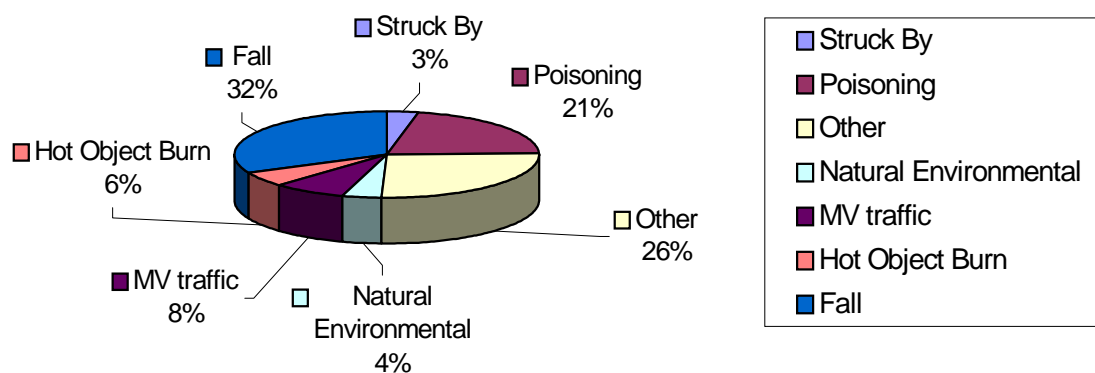
In 1998, 75 children under the age of 5 died as a result of injury. During 1998 and 1999, an additional 2478 children in this age group were hospitalized as a result of injury. This age group accounted for 2.2% of injury deaths and 3% of all injury discharges. Unintentional injuries ac-

counted for 69.3% of injury deaths and 86.7% of injury hospitalizations. Assault accounted for 25.3% of injury deaths and 4.2% of injury hospitalizations. Self-inflicted injuries accounted for 2.2% of injury hospitalizations.

**Figure 11: The Leading Causes of Injury Deaths
Children 0-4 Years, VA 1998 (N=75)**



**Figure 12: The Leading Causes of Injury Hospitalizations,
Children 0-4 Years, VA 1998 and 1999 (N=2478)**



Children 5 to 9 Years of Age

In 1998, 34 children 5-9 years of age died as a result of injury. During 1998 and 1999, an additional 1457 children in this age group were hospitalized as a result of injury. This age group accounted for 1% of injury deaths and 1.8% of all injury hospitalizations. Unintentional injuries

accounted for 91.2% of injury deaths and 94.5% of injury hospitalizations. Assault accounted for 8.8% of injury deaths and 1.3% of injury hospitalizations. Self-inflicted injuries accounted for 1.1% of the injury hospitalizations.

Figure 13: The Leading Causes of Injury Deaths, Children 5-9 Years, VA 1998 (N=34)

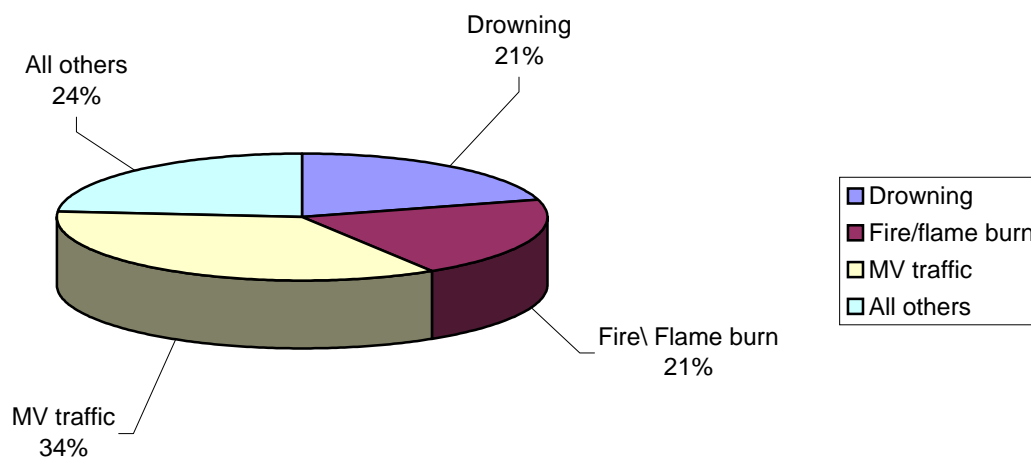
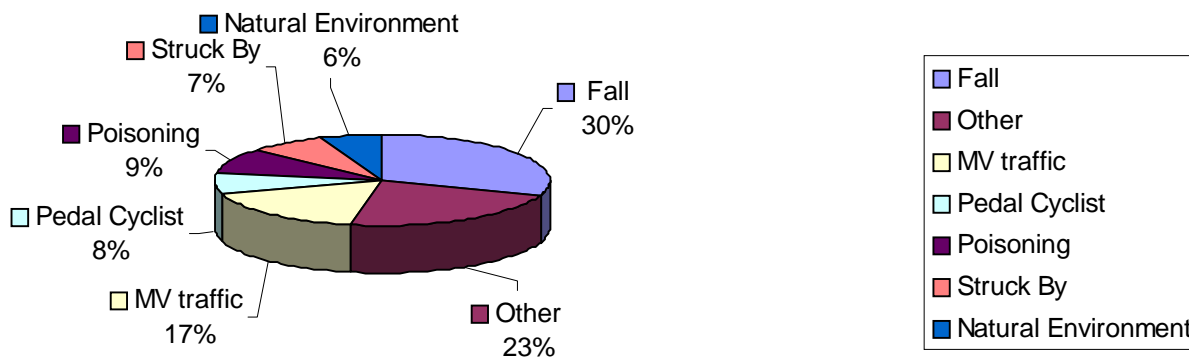


Figure 14: Leading Causes of Injury Hospitalizations, Children 5-9 Years, VA 1998 and 1999 (N=1457)

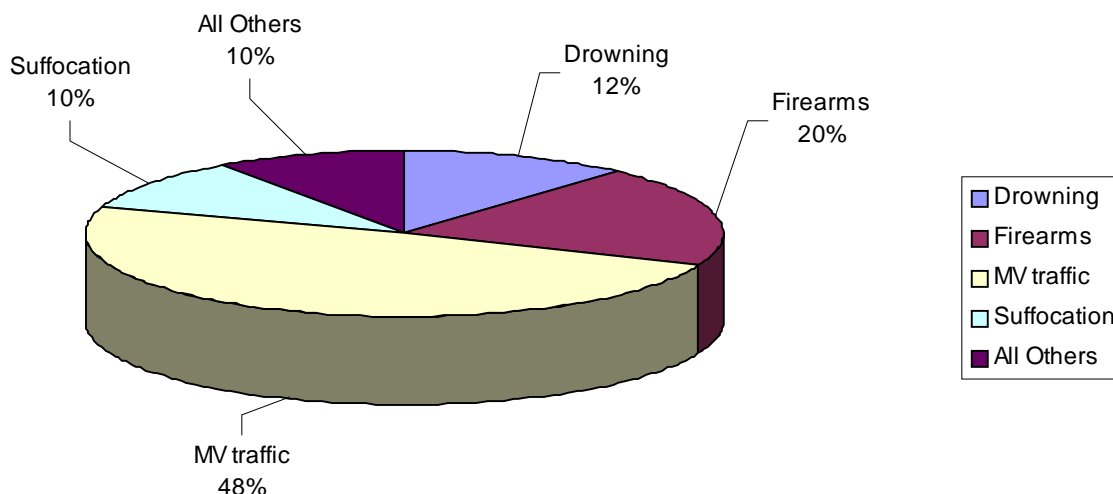


Children 10 to 14 Years of Age

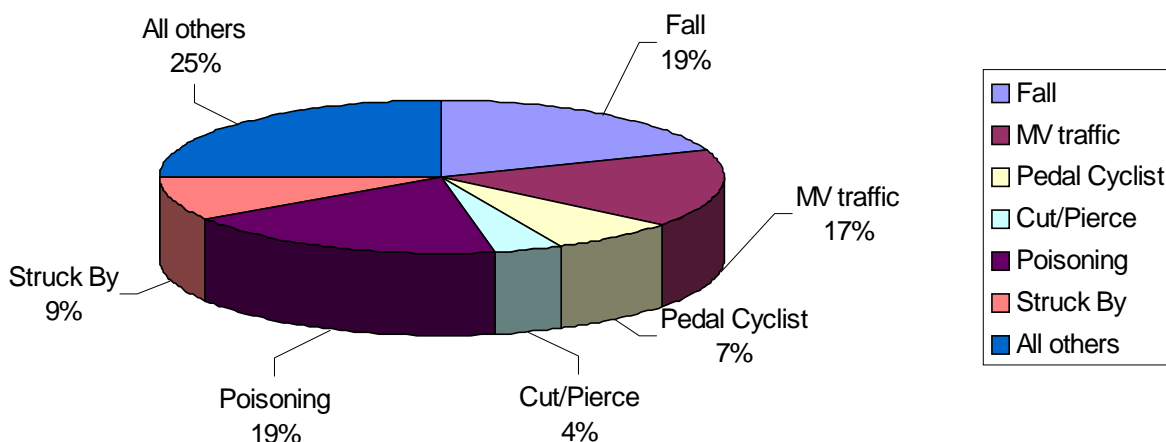
In 1998, 51 children 10-14 years of age died as a result of injury. During 1998 and 1999, an additional 1950 children in this age group were hospitalized as a result of injury. This age group accounted for 1.5% of injury deaths and 2.4% of all injury hospitalizations. Unintentional injuries

accounted for 76.5% of injury deaths and 78.1% of injury hospitalizations. Assault accounted for 7.8% of injury deaths and 2.5% of injury hospitalizations. Self-inflicted injuries accounted for 15.7% of injury deaths and 14.9% of the injury hospitalizations.

**Figure 15: The Leading Causes of Injury Deaths
Children 10-14 Years, VA 1998 (N=51)**



**Figure 16: The Leading Causes of Injury Hospitalizations,
Children 10-14 Years. VA 1998 and 1999 (N=1950)**



Adolescents 15 to 19 Years of Age

In 1998, 228 young adolescents 15-19 years of age died as a result of injury. During 1998 and 1999, an additional 4694 adolescents in this age group were hospitalized as a result of injury. This age group accounted for 6.7% of injury deaths and 5.7% of all injury hospitalizations. Uninten-

tional injuries accounted for 56.6% of injury deaths and 63.5% of injury hospitalizations. Assault accounted for 20.6% of injury deaths and 8.3% of injury hospitalizations. Self-inflicted injuries accounted for 21.9% of injury deaths and 23.8% of injury hospitalizations.

Figure 17: The Leading Causes of Injury Deaths, Adolescents 15-19 Years, VA 1998 (N=228)

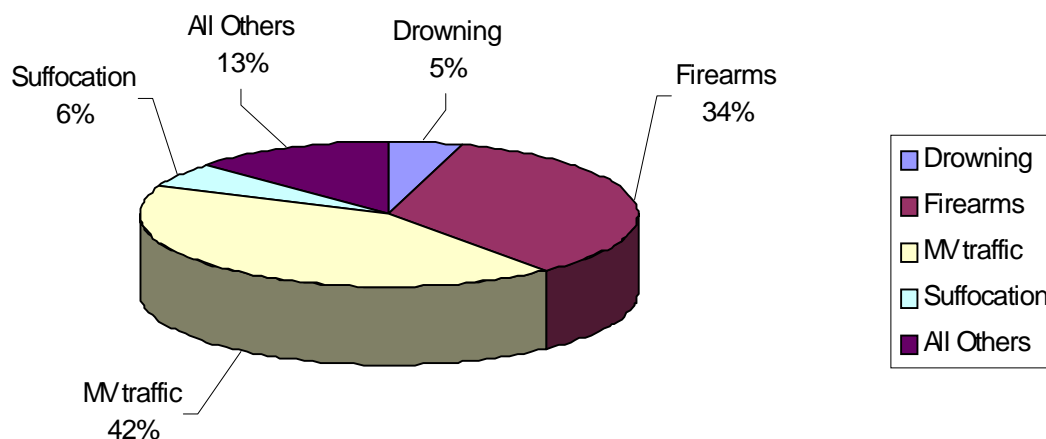
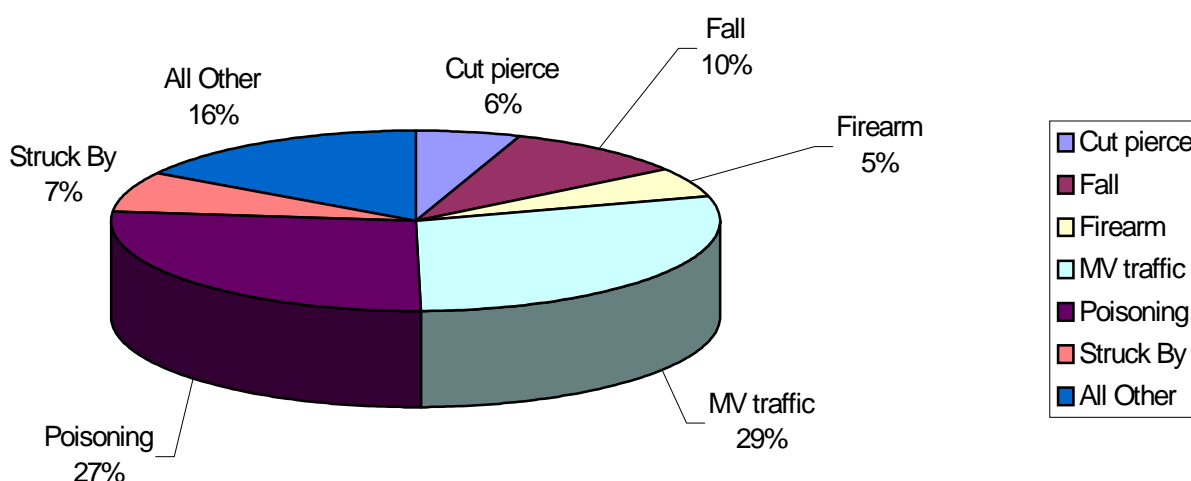


Figure 18: The Leading Causes of Injury Hospitalizations Adolescents 15-19 Years , VA 1998 and 1999 (N=4694)

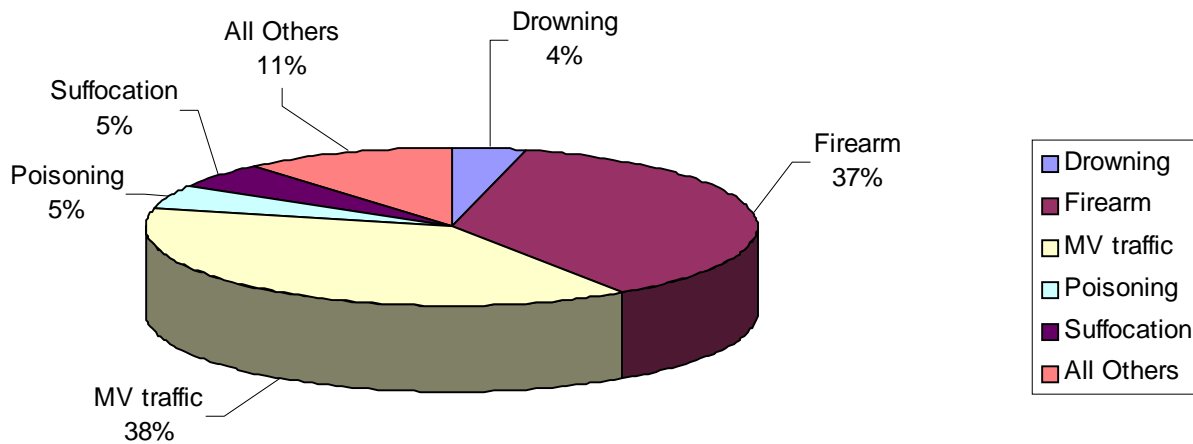


Adults 20 to 24 Years of Age

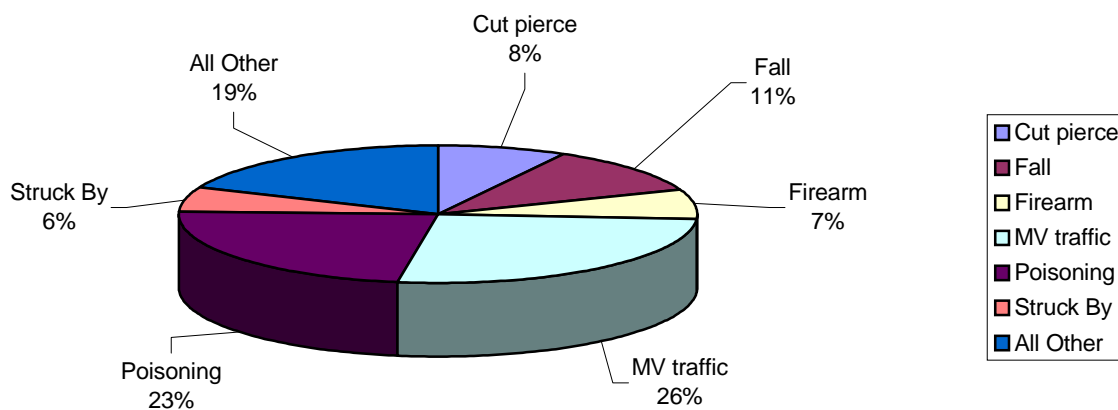
In 1998, 252 young adults 20-24 years of age died as a result of injury. During 1998 and 1999, an additional 4351 young adults in this age group were hospitalized as a result of injury. This age group accounted for 7.4% of injury deaths and 5.2% of all injury hospitalizations. Unintentional

injuries accounted for 51.6% of injury deaths and 61.9% of injury hospitalizations. Assault accounted for 23.8% of injury deaths and 12.1% of injury hospitalizations. Self-inflicted injuries accounted for 23.8% of injury deaths and 21.7% of injury hospitalizations.

**Figure 19: The Leading Causes of Injury Deaths
Adults 20-24 Years, VA 1998 (N=252)**



**Figure 20: The Leading Causes of Injury Hospitalizations
Adults 20-24 Years, VA 1998 and 1999 (N=4351)**

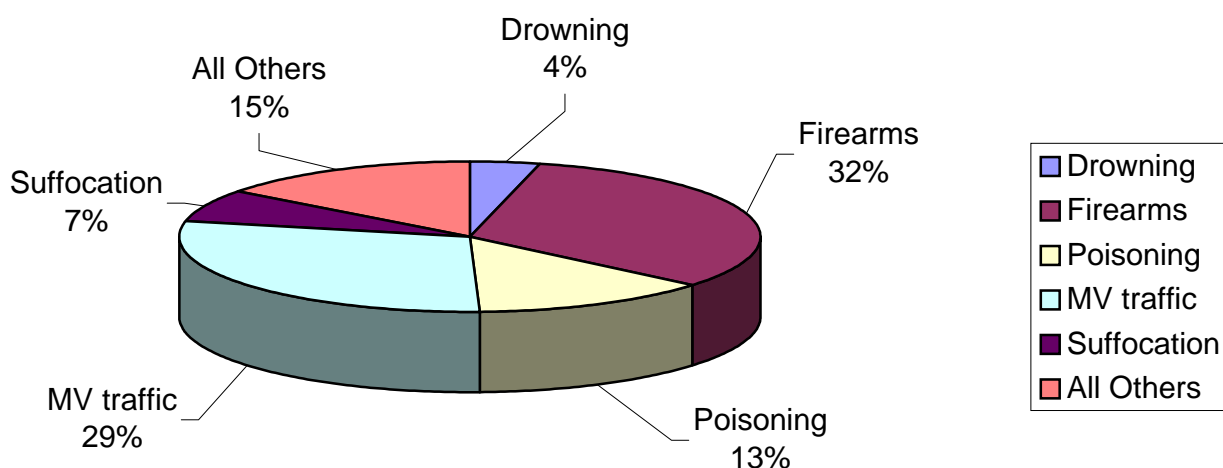


Adults 25 to 34 Years of Age

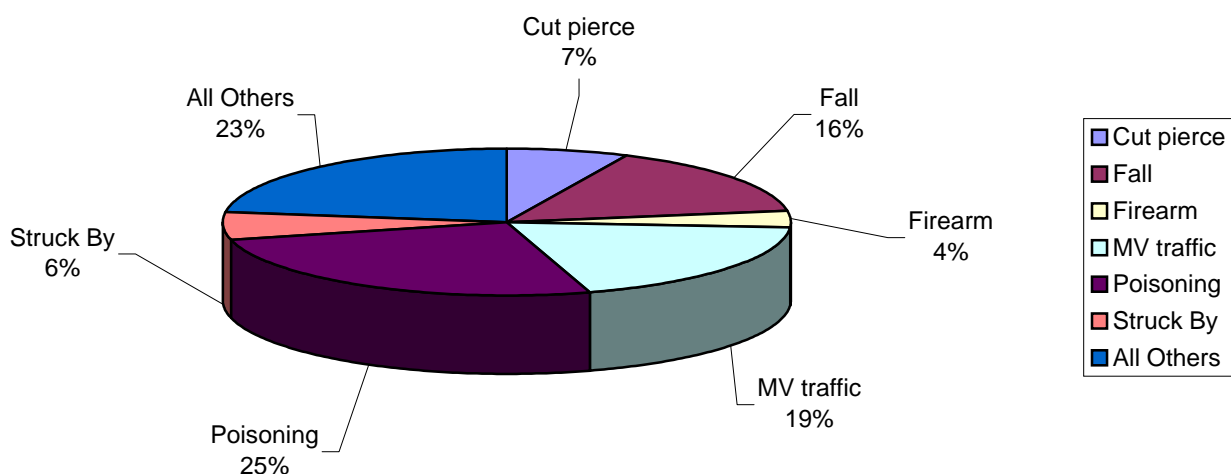
In 1998, 506 adults 25-34 years of age died as a result of injury. During 1998 and 1999, an additional 9020 adults in this age group were hospitalized as a result of injury. This age group accounted for 14.8% of injury deaths and 10.9% of all injury hospitalizations. Unintentional in-

juries accounted for 51% of injury deaths and 63.6% of injury hospitalizations. Assault accounted for 20% of injury deaths and 8.6% of injury hospitalizations. Self-inflicted injuries accounted for 26.7% of injury deaths and 22.8% of injury hospitalizations.

**Figure 21: The Leading Causes of Injury Deaths
Adults 25-34 Years, VA 1998 (N=506)**



**Figure 22: The Leading Causes of Injury Hospitalizations
Adults 25-34 Years, VA 1998 and 1999 (N=9020)**

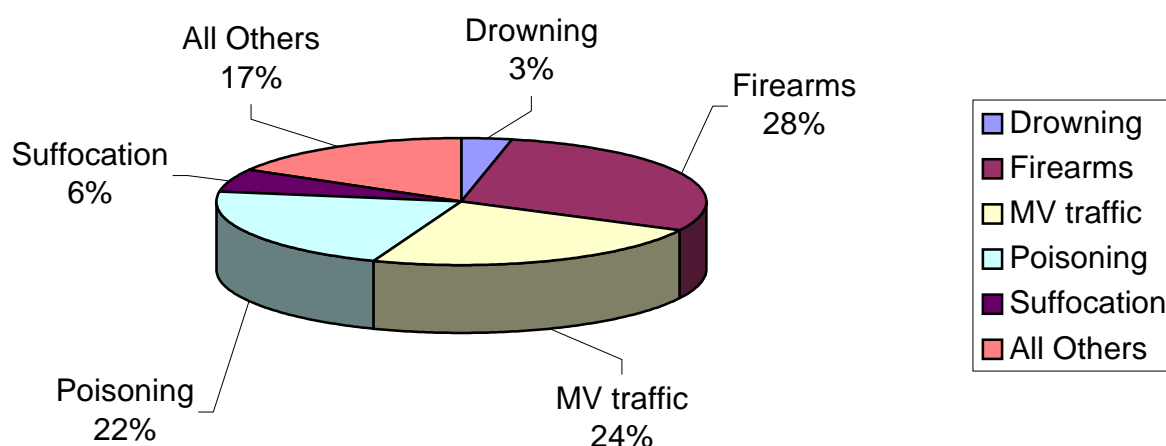


Adults 35 to 44 Years of Age

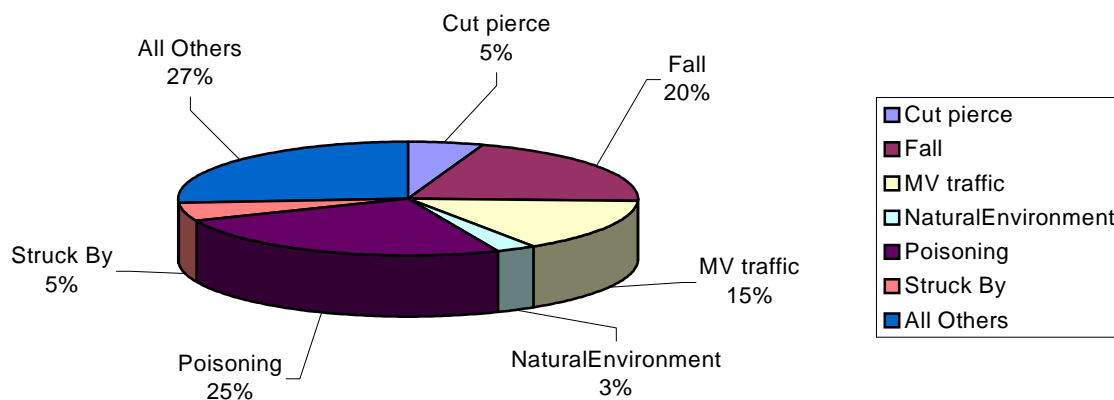
In 1998, 645 adults 35-44 years of age died as a result of injury. During 1998 and 1999, an additional 10,724 adults in this age group were hospitalized as a result of injury. This age group accounted for 18.9% of injury deaths and 13.0% of all injury hospitalizations. Unintentional in-

juries accounted for 53.3% of injury deaths and 66.9% of injury hospitalizations. Assault accounted for 12.9% of injury deaths and 6.8% of injury hospitalizations. Self-inflicted injuries accounted for 31.6% of injury deaths and 20.1% of injury hospitalizations.

**Figure 23: The Leading Causes of Injury Deaths
Adults 35-44 Years, VA 1998 (N=645)**



**Figure 24: The Leading Causes of Injury Hospitalizations
Adults 35-44 Years, VA 1998 and 1999 (N=10724)**



Adults 45 to 54 Years of Age (Figures 25 and 26)

In 1998, 414 adults 45-54 years of age died as a result of injury. During 1998 and 1999, an additional 8629 adults in this age group were hospitalized as a result of injury. This age group accounted for 12.1% of injury deaths and 10.4% of all injury hospitalizations. Unintentional in-

juries accounted for 54.1% of injury deaths and 75.6% of injury hospitalizations. Assault accounted for 11.1% of injury deaths and 3.8% of injury hospitalizations. Self-inflicted injuries accounted for 33.8% of injury deaths and 13.2% of injury hospitalizations.

Figure 25: The Leading Causes of Injury Death for Adults 45-54 Years, VA 1998 (N=414)

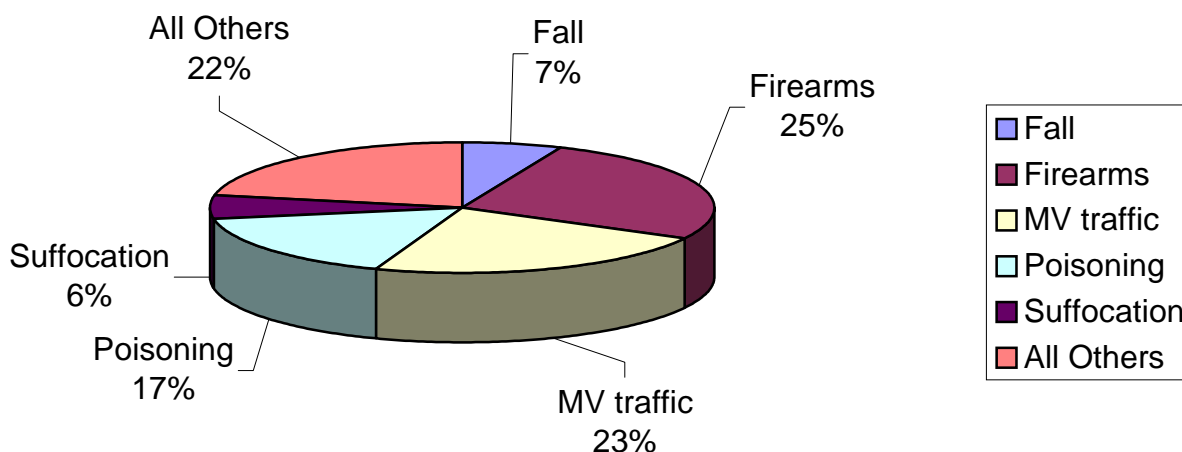
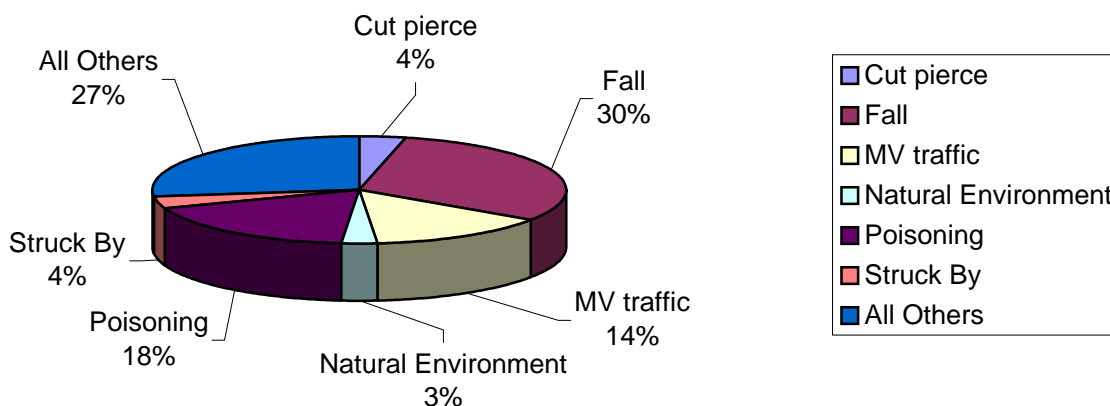


Figure 26: The Leading Causes of Injury Hospitalization for Adults 45-54 Years, VA 98 and 99 (N=8629)

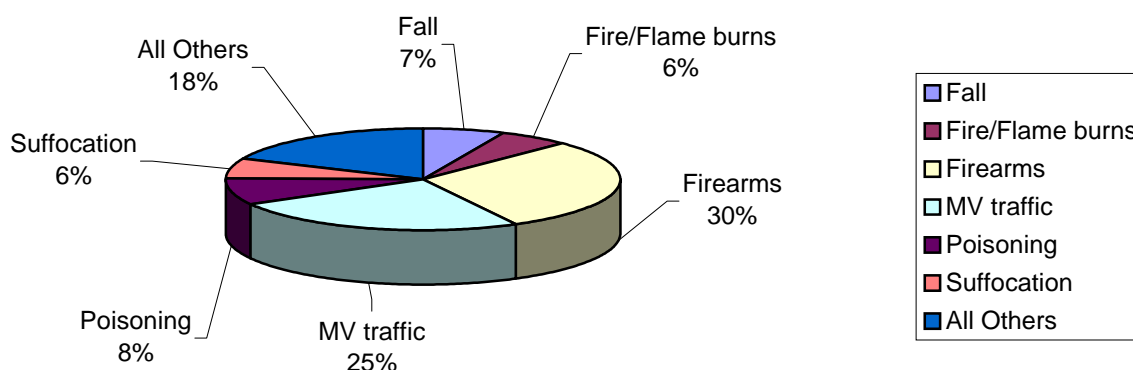


Adults 55 to 64 Years of Age

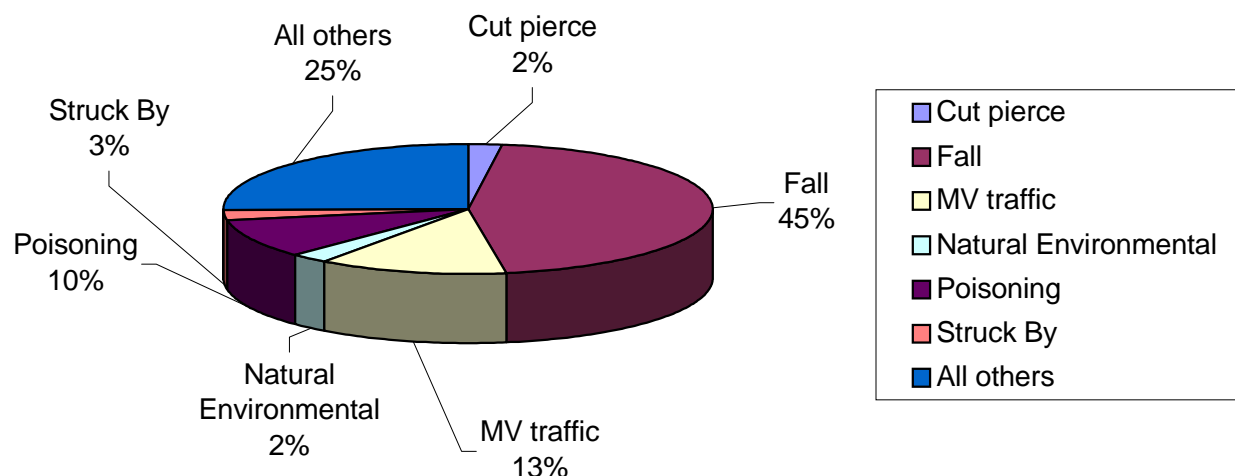
In 1998, 272 adults 55-64 years of age died as a result of injury. During 1998 and 1999, an additional 7014 adults in this age group were hospitalized as a result of injury. This age group accounted for 8% of injury deaths and 8.5% of all injury hospitalizations. Unintentional injuries

accounted for 62.9% of injury deaths and 84.9% of injury hospitalizations. Assault accounted for 5.5% of injury deaths and 1.5% of injury hospitalizations. Self-inflicted injuries accounted for 31.3% of injury deaths and 5.4% of injury hospitalizations.

**Figure 27: The Leading Causes of Injury Deaths
Adults 55-64 Years, VA 1998 (N=272)**



**Figure 28: The Leading Causes of Injury Hospitalizations
Adults 55-64 Years, VA 1998 and 1999 (N=7014)**



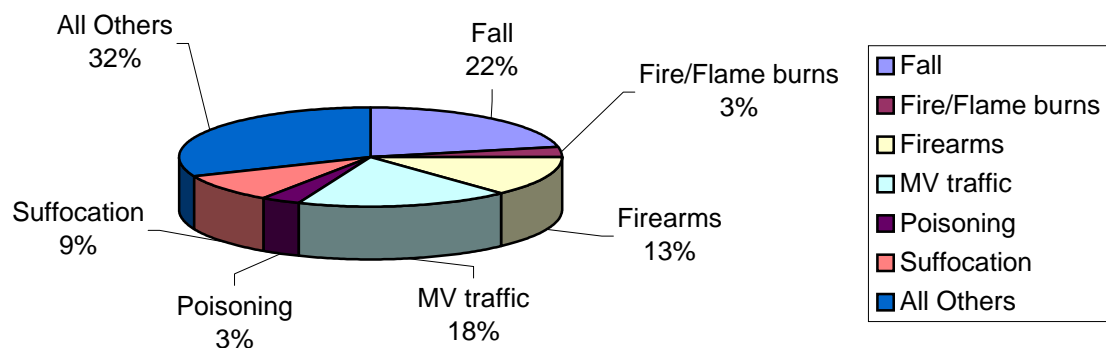
Adults 65 Years and Over

In 1998, 936 older adults 65 years and over died as a result of injury. During 1998 and 1999, an additional 32,594 older adults in this age group were hospitalized as a result of injury. This age group accounted for 27.4% of injury deaths and 39.3% of all injury hospitalizations. Unintentional injuries accounted for 82.1% of injury deaths and 93.7% of injury hospitalizations. Assault accounted for 2.4% of injury deaths and 0.6% of injury hospitalizations. Self-inflicted

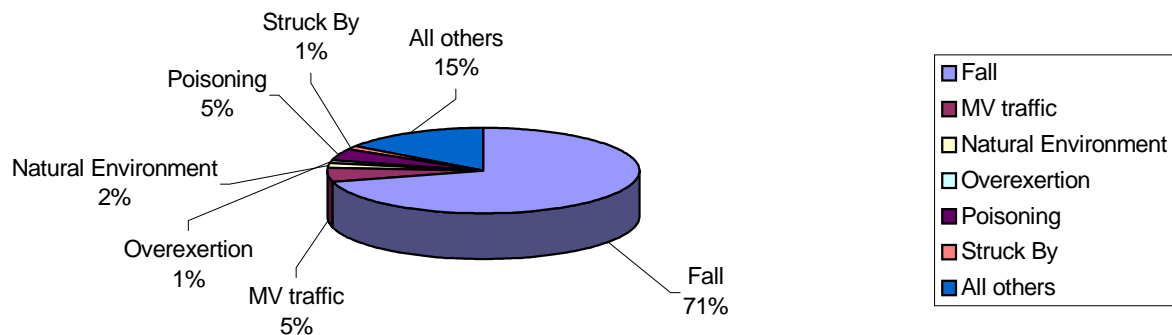
injuries accounted for 15.5% of injury deaths and 2.2% of injury hospitalizations. Self-inflicted injuries are the third leading cause of injury deaths among older adults over 65 years old.

Of all injury categories, falls account for the most injury fatalities and hospitalizations among those over age 65 (21.7% & 72.6% respectively), followed by motor vehicle related injuries (18.3% & 5.6% respectively).

**Figure 29: The Leading Causes of Injury Deaths
Older Adults 65 Years and Over, VA 1998 (N=936)**



**Figure 30: The Leading Causes of Injury Hospitalizations
Adults 65 Years and Over, VA 1998 and 1999 (N=32, 594)**



VI. Conclusions

This report summarizes 1998 injury-related fatalities and 1998-1999 injury-related hospitalizations transition among Virginia residents. The results presented here are a testament to the importance of injury prevention. Although human suffering and loss caused by injury is the greatest cost involved, the financial cost of injury is also staggering. The toll that injuries take on our population in terms of death and disability, and the cost of injuries to society, suggest why it is important to invest resources in injury prevention.

We hope that this report will help Virginians better understand injury and, moreover, to recognize injury as a serious public health concern that must be addressed. The public often perceive and the media sometimes portrays injuries as “accidents” caused by chance or carelessness, rather than preventable events that can be reduced through behavioral changes, environmental modifications, and the innovation use of safety devices.

The data presented here illustrate the major injury problems within Virginia and the groups who are at greater risk. This information can be used to implement targeted prevention strategies. Modern approaches to injury prevention are grounded in a public health framework that consider an injury to be the product of the interaction between an individual, the agent or object that causes injury, and the physical and social environment. Injury prevention can target the individual, the agent or the environment.

The general approaches to injury prevention used today are interdisciplinary, and multifaceted. These approaches include education, environment, behavior or product modification, and enforcement of legal or regulatory requirements.

This report is based only on 1998 fatal injuries and 1998-1999 non-fatal injuries that were E-coded by hospitals in Virginia, and therefore, represents only a small portion of the injuries that occur daily. Furthermore, because of the limitations encountered, caution should be used when interpreting the information presented in this report. The information considered in this report is a stepping stone for future reports and research projects and, therefore, welcomes feedback from readers.

This report is the third to address the magnitude and the types of injuries that occur in Virginia. The scope of injury compels attention from planners, community leaders, parents, and others involved with the safety of Virginians. It is incumbent upon all of us to work together to reduce preventable injuries and deaths.

VII. Appendices

Appendix A:

**Cause-Specific Analysis,
Charges and Length of Stay of Injury-related Hospitalizations**

Cut/Pierce

Age	Frequency	Total charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	53	202,036	3,812	139	2.6
5-9	49	287,089	5,859	124	2.5
10-14	77	510,625	6,631	262	3.4
15-19	259	1,814,806	7,007	810	3.1
20-24	355	2,442,378	6,880	1036	2.9
25-34	617	4,658,252	7,550	2019	3.3
35-44	554	4,238,444	7,651	2056	3.7
45-54	320	2,697,484	8,430	1348	4.2
55-64	165	1,575,608	9,549	769	4.7
65 and over	250	2,527,984	10,112	1356	5.4
TOTAL	2699	20,954,706	7,764	9919	3.7

Drowning/Submersion

Age	Frequency	Total charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	27	114,447	4,239	41	1.5
5-9	30	242,507	8,084	114	3.8
10-14	12	101,360	8,447	30	2.5
15-19	13	136,162	10,474	43	3.3
20-24	7	71,339	10,191	24	3.4
25-34	11	60,152	5,468	25	2.3
35-44	8	153,739	19,217	39	4.9
45-54	6	48,653	8,109	11	1.8
55-64	8	88,073	11,009	30	3.8
65 and over	13	85,441	6,572	40	3.1
TOTAL	135	1,101,873	8,162	397	2.9

Falls

Age	Frequency	Total charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	790	3,109,534	3,936	1592	2.0
5-9	440	2,651,324	6,026	898	2.0
10-14	378	2,415,546	6,390	837	2.2
15-19	459	4,328,260	9,430	1296	2.8
20-24	474	4,848,459	10,229	1792	3.8
25-34	1409	13,421,697	9,526	4442	3.2
35-44	2178	23,728,720	10,895	9061	4.2
45-54	2664	30,751,208	11,543	12493	4.7
55-64	3169	37,887,394	11,956	15771	5.0
65 and over	23668	298,339,832	12,605	147327	6.2
TOTAL	35629	421,481,974	11,830	195509	5.5

Fire/Flame Burn

Age	Frequency	Total Charges (\$)	Average Charge (\$)	Total LOS	Average LOS
0-4	26	154,574	5,945	86	3.3
5-9	20	274,336	13,717	124	6.2
10-14	21	271,081	12,909	158	7.5
15-19	28	226,893	8,103	112	4.0
20-24	25	264,691	10,588	115	4.6
25-34	77	1,360,084	17,663	557	7.2
35-44	103	1,517,656	14,735	710	6.9
45-54	67	1,901,350	28,378	833	12.4
55-64	46	687,365	14,943	323	7.0
65 Y and Over	120	2,132,057	17,767	1085	9.0
TOTAL	533	8,790,087	16,492	4103	7.7

Hot Object Burn

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	142	1,228,520	8,652	672	4.7
5-9	22	237,007	10,773	150	6.8
10-14	13	184,248	14,173	102	7.8
15-19	23	245,044	10,654	152	6.6
20-24	43	396,428	9,219	277	6.4
25-34	77	633,160	8,223	404	5.2
35-44	84	969,897	11,546	560	6.7
45-54	76	1,098,836	14,458	642	8.4
55-64	62	727,282	11,730	500	8.1
65 and over	141	1,442,747	10,232	882	6.3
TOTAL	683	7,163,169	10,488	4341	6.4

Firearms

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	9	26,609	2,957	13	1.4
5-9	16	141,678	8,855	38	2.4
10-14	35	415,046	11,858	134	3.8
15-19	250	4,617,879	18,472	1220	4.9
20-24	313	6,162,305	19,688	1785	5.7
25-34	320	6,773,383	21,167	1783	5.6
35-44	213	4,485,515	21,059	1371	6.4
45-54	94	2,020,832	21,498	547	5.8
55-64	45	1,015,773	22,573	315	7.0
65 up	74	1,106,817	14,957	460	6.2
TOTAL	1369	26,765,837	19,551	7666	5.6

Machinery

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	5	85,396	17,079	56	11.2
5-9	9	93,910	10,434	35	3.9
10-14	9	55,562	6,174	23	2.6
15-19	23	411,259	17,881	123	5.3
20-24	48	452,699	9,431	144	3.0
25-34	96	1,143,398	11,910	349	3.6
35-44	139	1,621,586	11,666	538	3.9
45-54	95	1,380,738	14,534	396	4.2
55-64	69	769,744	11,156	293	4.2
65 and over	84	1,186,493	14,125	437	5.2
TOTAL	577	7,200,785	12,480	2394	4.1

Other Pedel Cyclist

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	14	81,185	5,799	60	4.3
5-9	110	659,994	6,000	289	2.6
10-14	141	956,385	6,783	385	2.7
15-19	38	277,439	7,301	91	2.4
20-24	21	119,379	5,685	47	2.2
25-34	40	378,841	9,471	113	2.8
35-44	75	637,989	8,507	191	2.5
45-54	70	883,985	12,628	346	4.9
55-64	42	669,095	15,931	204	4.9
65 and over	51	790,787	15,506	325	6.4
TOTAL	602	5,455,079	9,062	2051	3.4

Motor Vehicle Traffic

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	192	1,594,614	8,305	564	2.9
5-9	252	2,313,499	9,181	808	3.2
10-14	322	4,287,040	13,314	1329	4.1
15-19	1366	21,956,550	16,074	6806	5.0
20-24	1141	19,337,394	16,948	5300	4.6
25-34	1735	27,017,874	15,572	7396	4.3
35-44	1644	28,868,151	17,560	8176	5.0
45-54	1209	20,475,715	16,936	6290	5.2
55-64	880	12,922,357	14,684	4389	5.0
65 and over	1828	26,915,212	14,724	11002	6.0
TOTAL	10569	165,688,406	15,677	52060	4.9

Pedestrian

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	8	75,070	9,384	33	4.1
5-9	13	74,514	5,732	29	2.2
10-14	7	109,956	15,708	22	3.1
15-19	5	97,977	19,595	33	6.6
20-24	4	42,031	10,508	9	2.3
25-34	13	222,923	17,148	35	2.7
35-44	12	196,370	16,364	121	10.1
45-54	17	285,212	16,777	124	7.3
55-64	6	132,440	22,073	37	6.2
65 and over	35	612,849	17,510	253	7.2
TOTAL	120	1,849,342	15,411	696	5.8

Other Transportation

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	27	74,570	2,762	47	1.7
5-9	31	218,397	7,045	134	4.3
10-14	70	534,397	7,634	200	2.9
15-19	101	1,041,270	10,310	303	3.0
20-24	69	765,640	11,096	318	4.6
25-34	163	2,175,381	13,346	633	3.9
35-44	190	2,243,398	11,807	748	3.9
45-54	182	1,927,088	10,588	682	3.7
55-64	95	1,013,315	10,666	422	4.4
65 and over	175	1,660,304	9,487	841	4.8
TOTAL	1103	11,653,760	10,566	4328	3.9

Natural/Environmental

Age	Frequency	Total Charges (\$)	Average Charge (\$)	Total LOS	Average LOS
0-4	99	388,801	3,927	249	2.5
5-9	91	297,247	3,267	175	1.9
10-14	70	439,940	6,285	207	3.0
15-19	47	179,041	3,809	93	2.0
20-24	66	414,990	6,288	215	3.3
25-34	178	979,376	5,502	453	2.5
35-44	292	1,696,803	5,811	954	3.3
45-54	243	1,484,439	6,109	775	3.2
55-64	171	1,421,577	8,313	733	4.3
65 and over	526	5,732,088	10,898	2895	5.5
TOTAL	1783	13,034,302	7,310	6749	3.8

Over-exertion

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	4	11,063	2,766	8	2.0
5-9	8	49,744	6,218	42	5.3
10-14	32	223,428	6,982	81	2.5
15-19	61	427,346	7,006	116	1.9
20-24	53	278,963	5,263	74	1.4
25-34	158	1,221,146	7,729	352	2.2
35-44	204	1,358,558	6,660	487	2.4
45-54	153	1,382,792	9,038	481	3.1
55-64	143	1,305,367	9,128	483	3.4
65 and Over	324	2,991,680	9,234	1610	5.0
TOTAL	1140	9,250,087	8,114	3734	3.3

Poisoning

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	523	1,555,232	2,974	968	1.9
5-9	130	384,214	2,955	231	1.8
10-14	364	1,613,456	4,433	792	2.2
15-19	1268	5,804,043	4,577	2764	2.2
20-24	1008	4,783,402	4,745	2412	2.4
25-34	2344	12,325,222	5,258	5742	2.4
35-44	2678	15,213,731	5,681	7633	2.9
45-54	1553	10,356,566	6,669	5075	3.3
55-64	676	6,009,796	8,890	3042	4.5
65 and Over	1636	18,764,547	11,470	9298	5.7
TOTAL	12180	76,810,209	6,306	37957	3.1

Struck by/Against Objects

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	86	470,576	5,472	241	2.8
5-9	103	630,717	6,123	321	3.1
10-14	177	1,076,256	6,081	400	2.3
15-19	330	2,193,697	6,648	664	2.0
20-24	249	1,946,841	7,819	618	2.5
25-34	535	5,026,903	9,396	1674	3.1
35-44	580	6,393,013	11,022	2231	3.8
45-54	312	3,381,353	10,838	1182	3.8
55-64	184	1,824,781	9,917	1052	5.7
65 and Over	390	4,160,259	10,667	2323	6.0
TOTAL	2946	27,104,396	9,200	10706	3.6

Suffocation

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	49	197,925	4,039	77	1.6
5-9	7	40,126	5,732	14	2.0
10-14	15	235,838	15,723	67	4.5
15-19	12	265,652	22,138	93	7.8
20-24	9	109,990	12,221	45	5.0
25-34	25	632,086	25,283	208	8.3
35-44	43	991,994	23,070	486	11.3
45-54	29	913,450	31,498	217	7.5
55-64	26	822,447	31,633	335	12.9
65 and Over	166	3,460,024	20,844	1489	9.0
TOTAL	381	7,669,532	20,130	3031	8.0

Other Unspecified

Age	Frequency	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
0-4	424	9,760,514	23,020	3643	8.6
5-9	126	1,295,826	10,284	506	4.0
10-14	207	2,338,966	11,299	1111	5.4
15-19	411	5,539,781	13,479	2802	6.8
20-24	466	8,314,207	17,842	3267	7.0
25-34	1222	15,323,818	12,540	6925	5.7
35-44	1727	24,931,392	14,436	11464	6.6
45-54	1539	27,122,563	17,623	11536	7.5
55-64	1227	29,158,195	23,764	10089	8.2
65 and Over	3113	64,745,424	20,798	27053	8.7
TOTAL	10462	141,418,999	13,517	78396	7.5

* (LOS) Length of Stay

Appendix B

Age, Race, Gender Analysis of Causes and Intent of Injury Hospitalizations

0-4 Years All Children

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	47	0	1	5	53	2.14	6.0
Drowning	27	0	0	0	27	1.09	3.0
Falls	788	0	1	1	790	31.88	89.1
Fire/Flame Burn	22	0	0	4	26	1.05	2.9
Hot object Burn	137	0	3	2	142	5.73	16.0
Firearms	7	0	0	2	9	0.36	1.0
Machinery	5	0	0	0	5	0.2	0.6
Motor Vehicle Traffic	192	0	0	0	192	7.75	21.7
Pedal Cyclist	14	0	0	0	14	0.56	1.6
Pedestrian, Other	8	0	0	0	8	0.32	0.9
Transport, Other	27	0	0	0	27	1.09	3.0
Natural/ Environmental	99	0	0	0	99	4	11.2
Overexertion	4	0	0	0	4	0.16	0.5
Poisoning	460	49	0	14	523	21.11	59.2
Struck by Object	73	0	13	0	86	3.47	9.7
Suffocation	48	0	0	1	49	1.98	5.5
Other Causes	187	5	84	148	424	17.11	47.6
Total	2145	54	102	177	2478	100	279.6

0-4 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	14	0	1	5	20	2.50	6.42
Drowning	13	0	0	0	13	1.63	4.18
Falls	297	0	0	0	297	37.17	95.43
Fire/Flame Burn	9	0	0	0	9	1.13	2.89
Hot object Burn	31	0	0	0	31	3.88	9.96
Firearms	2	0	0	0	2	0.25	0.64
Machinery	4	0	0	0	4	0.50	1.28
Motor Vehicle Traffic	62	0	0	0	62	7.76	19.92
Pedal Cyclist	7	0	0	0	7	0.88	2.25
Pedestrian, Other	3	0	0	0	3	0.38	0.96
Transport, Other	12	0	0	0	12	1.50	3.86
Natural/ Environmental	38	0	0	0	38	4.76	12.21
Overexertion	1	0	0	0	1	0.13	0.32
Poisoning	109	18	0	4	131	16.4	42.08
Struck by Object	33	0	4	0	37	4.63	11.89
Suffocation	19	0	0	0	19	2.38	6.1
Other Causes	50	2	24	37	113	14.14	36.31
Total	704	20	29	46	799	100	256.7

0-4 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	20	0	0	0	20	3.04	6.76
Drowning	5	0	0	0	5	0.76	1.69
Falls	247	0	0	1	248	37.69	83.84
Fire/Flame Burn	3	0	0	0	3	0.46	1.01
Hot object Burn	24	0	0	0	24	3.65	8.11
Firearms	3	0	0	0	5	0.76	1.69
Machinery	1	0	0	0	1	0.15	0.34
Motor Vehicle Traffic	46	0	0	0	46	6.99	15.55
Pedal Cyclist	1	0	0	0	1	0.15	0.34
Pedestrian, Other	1	0	0	0	1	0.15	0.34
Transport, Other	10	0	0	0	10	1.52	3.38
Natural/ Environmental	28	0	0	0	28	4.26	9.47
Overexertion		0	0	0	0	0.00	0.00
Poisoning	111	24	0	7	142	21.58	48.00
Struck by Object	15	0	6	0	21	3.19	7.10
Suffocation	6	0	0	0	6	0.91	2.03
Other Causes	41	3	20	33	97	14.74	32.8
Total	562	27	26	43	658	100	222.44

0-4 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	7	0	0	0	7	1.99	7.12
Drowning	2	0	0	0	2	0.57	2.04
Falls	73	0	0	0	73	20.80	74.05
Fire/Flame Burn	3	0	0	0	6	1.71	6.10
Hot object Burn	37	0	3	0	40	11.40	40.63
Firearms	2	0	0	0	2	0.57	2.04
Machinery	0	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	28	0	0	0	28	7.98	28.42
Pedal Cyclist	2	0	0	0	2	0.57	2.02
Pedestrian, Other	2	0	0	0	2	0.57	2.04
Transport, Other	1	0	0	0	1	0.28	1.01
Natural/ Environmental	14	0	0	0	14	3.99	14.22
Overexertion	0	0	0	0	0	0.00	0.00
Poisoning	101	2	0	0	103	29.34	104.45
Struck by Object	11	0	2	0	13	3.70	13.18
Suffocation	5	0	0	0	5	1.42	5.07
Other Causes	25	0	22	6	53	15.10	53.83
Total	313	2	27	9	351	100.00	356.21

0-4 Years Black Females

Causes	Unintentional	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	1	0	0	1	0.36	1.03
Drowning	2	0	0	2	0.72	2.05
Falls	50	1	0	51	18.41	52.30
Fire/Flame Burn	2	0	1	3	1.08	3.07
Hot object Burn	29	0	1	30	10.83	30.76
Firearms	0	0	0	0	0.00	0.00
Machinery	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	36	0	0	36	13.00	36.91
Pedal Cyclist	1	0	0	1	0.36	1.02
Pedestrian, Other	1	0	0	1	0.36	1.03
Transport, Other	2	0	0	2	0.72	2.05
Natural/ Environmental	12	0	0	12	4.33	12.30
Overexertion	0	0	0	0	0.00	0.00
Poisoning	68	0	1	69	24.91	70.75
Struck by Object	4	0	0	4	1.44	4.10
Suffocation	6	0	0	6	2.17	6.15
Other Causes	41	6	12	59	21.30	60.51
Total	255	7	15	277	100.00	284.05

0-4 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	6.42	7.12	6.76	1.03
Drowning	4.18	2.04	1.69	2.05
Falls	95.43	74.05	83.84	52.30
Fire/Flame Burn	2.89	6.12	1.01	3.07
Hot object Burn	9.96	40.63	8.11	30.76
Firearms	0.64	2.04	1.69	0.00
Machinery	1.28	0.00	0.34	0.00
Motor Vehicle Traffic	19.92	28.42	15.55	36.91
Pedal Cyclist	2.25	2.02	0.34	1.02
Pedestrian, Other	0.96	2.04	0.34	1.03
Transport, Other	3.89	1.01	3.38	2.05
Natural/ Environmental	12.21	14.22	9.47	12.30
Overexertion	0.03	0.00	0.00	0.00
Poisoning	42.08	104.45	48.00	70.75
Struck by Object	11.89	13.18	7.10	4.10
Suffocation	6.10	5.07	2.03	6.15
Other Causes	36.31	53.83	32.80	60.51
Total	256.70	356.21	222.44	284.05

5-9 Years All Children

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	48	0	1	0	49	3.36	5.15
Drowning	30	0	0	0	30	2.06	3.16
Falls	439	1	0	0	440	30.20	46.25
Fire/Flame Burn	19	0	0	1	20	1.37	2.11
Hot object Burn	22	0	0	0	22	1.51	2.32
Firearms	11	0	2	3	16	1.10	1.68
Machinery	9	0	0	0	9	0.62	0.95
Motor Vehicle Traffic	252	0	0	0	252	17.30	26.48
Pedal Cyclist	110	0	0	0	110	7.55	11.58
Pedestrian, Other	13	0	0	0	13	0.89	1.37
Transport, Other	31	0	0	0	31	2.13	3.25
Natural/ Environmental	91	0	0	0	91	6.25	9.55
Overexertion	8	0	0	0	8	0.55	0.84
Poisoning	111	14	1	4	130	8.92	13.65
Struck by Object	99	0	4	0	103	7.07	10.83
Suffocation	7	0	0	0	7	0.48	0.74
Other Causes	77	1	10	38	126	8.65	13.29
Total	1377	16	18	46	1457	100.00	153.20

5-9 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	21	0	0	0	21	3.96	6.41
Drowning	8	0	0	0	8	1.51	2.45
Falls	169	0	0	0	169	31.89	51.63
Fire/Flame Burn	8	0	0	0	8	1.51	2.45
Hot object Burn	4	0	0	0	4	0.75	1.22
Firearms	7	0	0	0	7	1.32	2.14
Machinery	6	0	0	0	6	1.13	1.83
Moto Vehicle Traffic	69	0	0	0	69	13.02	21.07
Pedal Cyclist	42	0	0	0	42	7.92	12.83
Pedestrian, Other	4	0	0	0	4	0.75	1.22
Transport, Other	19	0	0	0	19	3.58	5.80
Natural/ Environmental	52	0	0	0	52	9.81	15.88
Overexertion	2	0	0	0	2	0.38	0.61
Poisoning	25	2	0	0	27	5.09	8.24
Struck by Object	46	0	3	0	49	9.25	14.97
Suffocation	1	0	0	0	1	0.19	0.30
Other Causes	23	0	4	15	42	7.92	12.85
Total	506	2	7	15	530	100.00	161.91

5-9 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	6	0	0	0	6	1.71	1.94
Drowning	1	0	0	0	1	0.28	0.32
Falls	137	0	0	0	137	39.03	44.29
Fire/Flame Burn	3	0	0	0	4	1.14	1.29
Hot object Burn	8	0	0	0	8	2.28	2.59
Firearms	1	0	0	0	1	0.28	0.32
Machinery	2	0	0	0	2	0.57	0.65
Motor Vehicle Traffic	51	0	0	0	51	14.53	16.49
Pedal Cyclist	28	0	0	0	28	7.98	9.06
Pedestrian, Other	1	0	0	0	1	0.28	0.32
Transport, Other	11	0	0	0	11	3.13	3.55
Natural/ Environmental	21	0	0	0	21	5.98	6.78
Overexertion	4	0	0	0	4	1.14	1.29
Poisoning	16	5	1	1	23	6.55	7.43
Struck by Object	23	0	0	0	23	6.55	7.44
Suffocation	1	0	0	0	1	0.28	0.32
Other Causes	21	0	0	8	29	8.26	9.37
Total	335	5	1	9	351	100.00	113.47

5-9 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	4	0	0	0	4	3.05	3.65
Drowning	6	0	0	0	6	4.58	5.49
Falls	21	1	0	0	22	16.79	20.05
Fire/Flame Burn	3	0	0	0	3	2.29	2.74
Hot object Burn	4	0	0	0	4	3.05	3.66
Firearms	0	0	2	1	3	2.29	2.73
Machinery	0	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	31	0	0	0	31	23.66	28.24
Pedal Cyclist	3	0	0	0	3	2.29	2.73
Pedestrian, Other	3	0	0	0	3	2.29	2.74
Transport, Other	0	0	0	0	0	0.00	0.00
Natural/ Environmental	6	0	0	0	6	4.58	5.46
Overexertion	0	0	0	0	0	0.00	0.00
Poisoning	23	3	0	1	27	20.61	24.58
Struck by Object	3	0	1	0	4	3.05	3.64
Suffocation	0	0	0	0	0	0.00	0.00
Other Causes	11	1	3	0	15	11.45	13.69
Total	118	5	6	2	131	100.00	119.41

5-9 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	4	0	0	0	4	3.05	3.65
Drowning	6	0	0	0	6	4.58	5.49
Falls	21	1	0	0	22	16.79	20.05
Fire/Flame Burn	3	0	0	0	3	2.29	2.74
Hot object Burn	4	0	0	0	4	3.05	3.66
Firearms	0	0	2	1	3	2.29	2.73
Machinery	0	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	31	0	0	0	31	23.66	28.24
Pedal Cyclist	3	0	0	0	3	2.29	2.73
Pedestrian, Other	3	0	0	0	3	2.29	2.74
Transport, Other	0	0	0	0	0	0.00	0.00
Natural/ Environmental	6	0	0	0	6	4.58	5.46
Overexertion	0	0	0	0	0	0.00	0.00
Poisoning	23	3	0	1	27	20.61	24.58
Struck by Object	3	0	1	0	4	3.05	3.64
Suffocation	0	0	0	0	0	0.00	0.00
Other Causes	11	1	3	0	15	11.45	13.69
Total	118	5	6	2	131	100.00	119.41

5-9 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	6.41	10.72	1.94	3.65
Drowning	2.45	8.05	0.32	5.49
Falls	51.63	48.26	44.29	20.05
Fire/Flame Burn	2.45	1.79	1.29	2.74
Hot object Burn	1.22	4.48	2.59	3.66
Firearms	2.14	3.59	0.32	2.73
Machinery	1.83	0.89	0.65	0.00
Motor Vehicle Traffic	21.07	54.52	16.49	28.24
Pedal Cyclist	12.83	17.00	9.06	2.73
Pedestrian, Other	1.22	3.57	0.32	2.74
Transport, Other	5.80	0.89	3.55	0.00
Natural/ Environmental	15.88	8.04	6.78	5.46
Overexertion	0.61	0.89	1.29	0.00
Poisoning	8.24	32.14	7.43	24.58
Struck by Object	14.97	16.08	7.44	3.64
Suffocation	0.30	3.58	0.32	0.00
Other Causes	12.85	16.09	9.37	13.69
Total	161.91	230.60	113.47	119.41

10-14 Years All Children

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	51	22	2	2	77	3.95	8.19
Drowning	12	0	0	0	12	0.62	1.27
Falls	374	1	0	3	378	19.38	40.18
Fire/Flame Burn	20	0	0	1	21	1.08	2.22
Hot object Burn	13	0	0	0	13	0.67	1.38
Firearms	20	4	8	3	35	1.79	3.72
Machinery	9	0	0	0	9	0.46	0.96
Motor Vehicle Traffic	322	0	0	0	322	16.51	34.24
Pedal Cyclist	141	0	0	0	141	7.23	14.95
Pedestrian, Other	7	0	0	0	7	0.36	0.74
Transport, Other	70	0	0	0	70	3.59	7.47
Natural/ Environmental	70	0	0	0	70	3.59	7.42
Overexertion	32	0	0	0	32	1.64	3.40
Poisoning	89	251	0	24	364	18.67	38.61
Struck by Object	160	0	17	0	177	9.08	18.79
Suffocation	7	6	0	2	15	0.77	1.59
Other Causes	125	6	21	55	207	10.62	22.02
Total	1522	290	48	90	1950	100.00	207.15

10-14 Whites Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	20	4	1	0	25	3.20	7.80
Drowning	0	0	0	0	0	0.00	0.00
Falls	155	0	0	1	156	19.95	48.63
Fire/Flame Burn	14	0	0	0	14	1.79	4.39
Hot object Burn	3	0	0	0	3	0.38	0.94
Firearms	10	1	0	0	11	1.41	3.43
Machinery	6	0	0	0	6	0.77	1.87
Motor Vehicle Traffic	131	0	0	0	131	16.75	40.84
Pedal Cyclist	82	0	0	0	82	10.49	25.62
Pedestrian, Other	4	0	0	0	4	0.51	1.24
Transport, Other	40	0	0	0	40	5.12	12.45
Natural/ Environmental	34	0	0	0	34	4.35	10.62
Overexertion	17	0	0	0	17	2.17	5.29
Poisoning	25	37	0	6	68	8.70	21.19
Struck by Object	90	0	7	0	97	12.40	30.28
Suffocation	1	2	0	1	4	0.51	1.24
Other Causes	60	5	4	21	90	11.51	28.06
Total	692	49	12	29	782	100.00	243.88

10-14 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	13	13	0	1	27	5.61	8.87
Drowning	2	0	0	0	2	0.42	0.66
Falls	88	1	0	0	89	18.50	29.25
Fire/Flame Burn	2	0	0	1	3	0.62	0.98
Hot object Burn		0	0	0	0	0.00	0.00
Firearms	3	2	1	0	6	1.25	1.96
Machinery	2	0	0	0	2	0.42	0.66
Motor Vehicle Traffic	72	0	0	0	72	14.97	23.65
Pedal Cyclist	12	0	0	0	12	2.49	3.93
Pedestrian, Other	1	0	0	0	1	0.21	0.33
Transport, Other	19	0	0	0	19	3.95	6.24
Natural/ Environmental	19	0	0	0	19	3.95	6.26
Overexertion	6	0	0	0	6	1.25	1.97
Poisoning	26	132	0	9	167	34.72	54.99
Struck by Object	12	0	1	0	13	2.70	4.28
Suffocation	0	3	0	0	3	0.62	0.99
Other Causes	18	0	5	17	40	8.32	13.12
Total	295	151	7	28	481	100.00	158.15

10-14 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	8	1	0	1	10	3.62	9.03
Drowning	5	0	0	0	5	1.81	4.50
Falls	49	0	0	1	50	18.12	45.45
Fire/Flame Burn	1	0	0	0	1	0.36	0.92
Hot object Burn	6	0	0	0	6	2.17	5.42
Firearms	4	0	6	3	13	4.71	11.85
Machinery	0	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	49	0	0	0	49	17.75	44.44
Pedal Cyclist	21	0	0	0	21	7.61	19.09
Pedestrian, Other	1	0	0	0	1	0.36	0.92
Transport, Other	5	0	0	0	5	1.81	4.53
Natural/ Environmental	6	0	0	0	6	2.17	5.45
Overexertion	6	0	0	0	6	2.17	5.51
Poisoning	16	10	0	2	28	10.14	25.49
Struck by Object	35	0	7	0	42	15.22	38.18
Suffocation	3	0	0	0	3	1.09	2.74
Other Causes	22	0	4	4	30	10.87	27.31
Total	237	11	17	11	276	100.00	250.82

10-14 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	4	3	1	0	8	5.56	7.44
Drowning	1	0	0	0	1	0.69	0.95
Falls	20	0	0	0	20	13.89	18.51
Fire/Flame Burn	3	0	0	0	3	2.08	2.81
Hot object Burn	3	0	0	0	3	2.08	2.77
Firearms	0	0	1	0	1	0.69	0.95
Machinery	0	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	25	0	0	0	25	17.36	23.30
Pedal Cyclist	10	0	0	0	10	6.94	9.27
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	1	0	0	0	1	0.69	0.91
Natural/ Environmental	5	0	0	0	5	3.47	4.67
Overexertion	1	0	0	0	1	0.69	0.91
Poisoning	11	31	0	2	44	30.56	41.27
Struck by Object	0	0	0	0	0	0.00	0.00
Suffocation	1	0	0	0	1	0.69	0.95
Other Causes	9	1	8	3	21	14.58	19.55
Total	94	35	10	5	144	100.00	134.24

10-14 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	7.80	9.03	8.87	7.44
Drowning	0.00	4.50	0.66	0.95
Falls	48.63	45.45	29.25	18.51
Fire/Flame Burn	4.39	0.92	0.98	2.81
Hot object Burn	0.94	5.42	0.00	2.77
Firearms	3.43	11.85	1.96	0.95
Machinery	1.87	0.00	0.66	0.00
Motor Vehicle Traffic	40.84	44.44	23.65	23.30
Pedal Cyclist	25.62	19.09	3.93	9.27
Pedestrian, Other	1.24	0.92	0.33	0.00
Transport, Other	12.45	4.53	6.24	0.91
Natural/ Environmental	10.62	5.45	6.26	4.67
Overexertion	5.29	5.51	1.97	0.91
Poisoning	21.19	25.49	54.99	41.27
Struck by Object	30.28	38.18	4.28	0.00
Suffocation	1.24	2.74	0.99	0.95
Other Causes	28.06	27.31	13.12	19.55
Total	243.88	250.82	158.15	134.24

15-19 Years All Adolescents

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	85	92	75	7	259	5.52	27.43
Drowning	13	0	0	0	13	0.28	1.39
Falls	454	4	0	1	459	9.78	48.67
Fire/Flame Burn	26	2	0	0	28	0.60	2.96
Hot object Burn	22	0	1	0	23	0.49	2.44
Firearms	84	14	114	38	250	5.33	26.53
Machinery	23	0	0	0	23	0.49	2.43
Motor Vehicle Traffic	1362	3	0	1	1366	29.10	144.80
Pedal Cyclist	38	0	0	0	38	0.81	4.04
Pedestrian, Other	5	0	0	0	5	0.11	0.53
Transport, Other	101	0	0	0	101	2.15	10.71
Natural/ Environmental	46	1	0	0	47	1.00	4.97
Overexertion	61	0	0	0	61	1.30	6.47
Poisoning	215	973	2	78	1268	27.01	134.55
Struck by Object	202	0	126	2	330	7.03	34.99
Suffocation	6	5	1	0	12	0.26	1.28
Other Causes	238	23	73	77	411	8.76	43.52
Total	2981	1117	392	204	4694	100.00	497.71

15-19 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	36	43	11	1	91	5.73	27.43
Drowning	3	0	0	0	3	0.19	0.91
Falls	164	1	0	1	166	10.45	50.13
Fire/Flame Burn	18	0	0	0	18	1.13	5.42
Hot object Burn	4	0	0	0	4	0.25	1.21
Firearms	18	8	9	3	38	2.39	11.45
Machinery	14	0	0	0	14	0.88	4.22
Motor Vehicle Traffic	507	0	0	1	508	31.97	153.37
Pedal Cyclist	27	0	0	0	27	1.70	8.17
Pedestrian, Other	2	0	0	0	2	0.13	0.61
Transport, Other	50	0	0	0	50	3.15	15.11
Natural/ Environmental	17	0	0	0	17	1.07	5.13
Overexertion	30	0	0	0	30	1.89	9.06
Poisoning	79	198	0	23	300	18.88	90.62
Struck by Object	115	0	55	1	171	10.76	51.68
Suffocation	0	2	0	0	2	0.13	0.60
Other Causes	99	9	23	17	148	9.31	44.68
Total	1183	261	98	47	1589	100.00	479.80

15-19 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	14	35	3	0	52	3.86	16.71
Drowning	0	0	0	0	0	0.00	0.00
Falls	138	1	0	0	139	10.33	44.65
Fire/Flame Burn	3	1	0	0	4	0.30	1.29
Hot object Burn	5	0	0	0	5	0.37	1.60
Firearms	3	1	1	2	7	0.52	2.24
Machinery	1	0	0	0	1	0.07	0.32
Motor Vehicle Traffic	405	2	0	0	407	30.24	130.81
Pedal Cyclist	4	0	0	0	4	0.30	1.29
Pedestrian, Other	1	0	0	0	1	0.07	0.32
Transport, Other	33	0	0	0	33	2.45	10.60
Natural/ Environmental	20	0	0	0	20	1.49	6.40
Overexertion	11	0	0	0	11	0.82	3.54
Poisoning	66	444	1	31	542	40.27	174.36
Struck by Object	22	0	8	0	30	2.23	9.64
Suffocation	2	1	0	0	3	0.22	0.97
Other Causes	54	8	4	21	87	6.46	27.92
Total	782	493	17	54	1346	100.00	432.68

15-19 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	16	3	35	5	59	8.65	52.75
Drowning	4	0	0	0	4	0.59	3.59
Falls	41	0	0	0	41	6.01	36.71
Fire/Flame Burn	2	0	0	0	2	0.29	1.79
Hot object Burn	5	0	1	0	6	0.88	5.34
Firearms	49	2	93	31	175	25.66	156.62
Machinery	3	0	0	0	3	0.44	2.67
Motor Vehicle Traffic	166	0	0	0	166	24.34	148.53
Pedal Cyclist	4	0	0	0	4	0.59	3.57
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	4	0	0	0	4	0.59	3.59
Natural/ Environmental	5	1	0	0	6	0.88	5.36
Overexertion	13	0	0	0	13	1.91	11.62
Poisoning	15	32	0	3	50	7.33	44.74
Struck by Object	33	0	35	1	69	10.12	61.53
Suffocation	1	2	1	0	4	0.59	3.56
Other Causes	41	2	26	7	76	11.14	67.92
Total	402	42	191	47	682	100.00	609.88

15-19 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	5	4	12	1	22	5.63	19.74
Drowning	4	0	0	0	4	1.02	3.61
Falls	23	2	0	0	25	6.39	22.51
Fire/Flame Burn	3	1	0	0	4	1.02	3.56
Hot object Burn	7	0	0	0	7	1.79	6.31
Firearms	3	1	8	1	13	3.32	11.73
Machinery	2	0	0	0	2	0.51	1.78
Motor Vehicle Traffic	111	0	0	0	111	28.39	99.80
Pedal Cyclist	1	0	0	0	1	0.26	0.91
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	0	0	0	0	0	0.00	0.00
Natural/ Environmental	0	0	0	0	0	0.00	0.00
Overexertion	3	0	0	0	3	0.77	2.69
Poisoning	28	119	1	6	154	39.39	138.38
Struck by Object	3	0	13	0	16	4.09	14.37
Suffocation	1	0	0	0	1	0.26	0.91
Other Causes	16	1	7	4	28	7.16	25.21
Total	210	128	41	12	391	100.00	351.51

15-19 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	27.43	52.75	16.71	19.74
Drowning	0.91	3.59	0.00	3.61
Falls	50.13	36.71	44.65	22.51
Fire/Flame Burn	5.42	1.79	1.29	3.56
Hot object Burn	1.21	5.34	1.60	6.31
Firearms	11.45	156.62	2.24	11.73
Machinery	4.22	2.67	0.32	1.78
Motor Vehicle Traffic	153.37	148.53	130.81	99.80
Pedal Cyclist	8.17	3.57	1.29	0.91
Pedestrian, Other	0.61	0.00	0.32	0.00
Transport, Other	15.11	3.59	10.60	0.00
Natural/ Environmental	5.13	5.36	6.40	0.00
Overexertion	9.06	11.62	3.54	2.69
Poisoning	90.62	44.74	174.36	138.38
Struck by Object	51.68	61.53	9.64	14.37
Suffocation	0.60	3.56	0.97	0.91
Other Causes	44.68	67.92	27.92	25.21
Total	479.80	609.88	432.68	351.51

20-24 Years All Adults

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	112	123	111	9	355	8.16	36.33
Drowning	6	1	0	0	7	0.16	0.71
Falls	463	4	2	5	474	10.89	48.65
Fire/Flame Burn	25	0	0	0	25	0.57	2.55
Hot object Burn	42	0	1	0	43	0.99	4.37
Firearms	63	20	191	39	313	7.19	31.95
Machinery	48	0	0	0	48	1.10	4.91
Motor Vehicle Traffic	1137	3	0	1	1141	26.22	116.79
Pedal Cyclist	21	0	0	0	21	0.48	2.17
Pedestrian, Other	4	0	0	0	4	0.09	0.40
Transport, Other	69	0	0	0	69	1.59	7.10
Natural/ Environmental	65	0	0	1	66	1.52	6.78
Overexertion	53	0	0	0	53	1.22	5.46
Poisoning	177	763	0	68	1008	23.17	103.17
Struck by Object	119	0	130	0	249	5.72	25.45
Suffocation	3	5	0	1	9	0.21	0.91
Other Causes	285	23	90	68	466	10.71	47.87
Total	2692	942	525	192	4351	100.00	445.57

20-24 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undetermined	Total	Column (%)	Rate
Cut/ Pierce	50	54	27	4	135	8.89	40.98
Drowning	1	0	0	0	1	0.07	0.31
Falls	146	1	1	2	150	9.88	45.55
Fire/Flame Burn	12	0	0	0	12	0.79	3.64
Hot object Burn	15	0	0	0	15	0.99	4.57
Firearms	19	9	16	4	48	3.16	14.58
Machinery	29	0	0	0	29	1.91	8.80
Motor Vehicle Traffic	449	3	0	0	452	29.78	137.21
Pedal Cyclist	9	0	0	0	9	0.59	2.72
Pedestrian, Other	1	0	0	0	1	0.07	0.31
Transport, Other	33	0	0	0	33	2.17	10.00
Natural/ Environmental	23	0	0	0	23	1.52	6.96
Overexertion	28	0	0	0	28	1.84	8.49
Poisoning	63	188	0	19	270	17.79	81.95
Struck by Object	69	0	44	0	113	7.44	34.30
Suffocation	0	3	0	0	3	0.20	0.91
Other Causes	137	7	25	27	196	12.91	59.44
Total	1084	265	113	56	1518	100.00	460.71

20-24 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	11	33	5	2	51	4.90	14.65
Drowning	0	0	0	0	0	0.00	0.00
Falls	143	0	1	0	144	17.91	53.51
Fire/Flame Burn	7	0	0	0	7	0.43	1.27
Hot object Burn	8	0	0	0	8	0.43	1.27
Firearms	2	0	2	2	6	0.85	2.55
Machinery	1	0	0	0	1	0.00	0.00
Motor Vehicle Traffic	261	0	0	1	262	24.95	74.53
Pedal Cyclist	5	0	0	0	5	0.85	2.55
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	20	0	0	0	20	2.56	7.64
Natural/ Environmental	28	0	0	0	28	2.77	8.28
Overexertion	5	0	0	0	5	0.85	2.55
Poisoning	55	249	0	29	333	31.77	94.91
Struck by Object	6	0	13	0	19	1.71	5.10
Suffocation	1	0	0	0	1	0.00	0.00
Other Causes	64	2	9	10	85	10.02	29.94
Total	617	284	30	44	975	100.00	298.75

20-24 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	21	6	50	1	78	9.59	74.14
Drowning	4	1	0	0	5	0.62	4.75
Falls	36	1	0	0	37	4.55	35.24
Fire/Flame Burn	4	0	0	0	4	0.49	3.75
Hot object Burn	7	0	1	0	8	0.98	7.58
Firearms	31	6	155	28	220	27.06	209.11
Machinery	5	0	0	0	5	0.62	4.72
Motor Vehicle Traffic	182	0	0	0	182	22.39	172.62
Pedal Cyclist	4	0	0	0	4	0.49	3.79
Pedestrian, Other	3	0	0	0	3	0.37	2.86
Transport, Other	6	0	0	0	6	0.74	5.61
Natural/ Environmental	7	0	0	0	7	0.86	6.65
Overexertion	4	0	0	0	4	0.49	3.86
Poisoning	22	64	0	5	91	11.19	86.33
Struck by Object	21	0	37	0	58	7.13	54.98
Suffocation	1	1	0	0	2	0.25	1.89
Other Causes	44	10	33	12	99	12.18	93.77
Total	402	89	276	46	813	100.00	771.67

20-24 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	6	6	8	0	20	4.96	19.33
Drowning	0	0	0	0	0	0.00	0.00
Falls	43	1	0	0	44	10.92	42.29
Fire/Flame Burn	2	0	0	0	2	0.50	1.96
Hot object Burn	7	0	0	0	7	1.74	6.77
Firearms	5	0	8	4	17	4.22	16.42
Machinery	1	0	0	0	1	0.25	0.95
MV traffic	100	0	0	0	100	24.81	96.29
Pedal Cyclist	0	0	0	0	0	0.00	0.00
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	2	0	0	0	2	0.50	1.96
Natural/ Environmental	2	0	0	0	2	0.50	1.93
Overexertion	9	0	0	0	9	2.23	8.70
Poisoning	22	110	0	2	134	33.25	129.29
Struck by Object	6	0	15	0	21	5.21	20.38
Suffocation	1	0	0	0	1	0.25	0.98
Other Causes	20	4	14	5	43	10.67	41.50
Total	226	121	45	11	403	100.00	388.75

20-24 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	40.98	74.14	14.65	19.33
Drowning	0.31	4.75	0.00	0.00
Falls	45.55	35.24	53.51	42.29
Fire/Flame Burn	3.64	3.75	1.27	1.96
Hot object Burn	4.57	7.58	1.27	6.77
Firearms	14.58	209.11	2.55	16.42
Machinery	8.80	4.72	0.00	0.95
Motor Vehicle Traffic	137.21	172.62	74.53	96.29
Pedal Cyclist	2.72	3.79	2.55	0.00
Pedestrian, Other	0.31	2.86	0.00	0.00
Transport, Other	10.00	5.61	7.64	1.96
Natural/ Environmental	6.96	6.65	8.28	1.93
Overexertion	8.49	3.86	2.55	8.70
Poisoning	81.95	86.33	94.91	129.29
Struck by Object	34.30	54.98	5.10	20.38
Suffocation	0.91	1.89	0.00	0.98
Other Causes	59.44	93.77	29.94	41.50
Total	460.71	771.67	298.75	388.75

25-34 Years All Adults

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	241	187	182	7	617	6.84	29.48
Drowning	11	0	0	0	11	0.12	0.53
Falls	1395	7	2	5	1409	15.62	67.32
Fire/Flame Burn	68	6	0	3	77	0.85	3.68
Hot object Burn	74	3	0	0	77	0.85	3.68
Firearms	85	26	163	46	320	3.55	15.29
Machinery	96	0	0	0	96	1.06	4.59
Motor Vehicle Traffic	1729	5	0	1	1735	19.24	82.90
Pedal Cyclist	40	0	0	0	40	0.44	1.91
Pedestrian, Other	13	0	0	0	13	0.14	0.62
Transport, Other	163	0	0	0	163	1.81	7.79
Natural/ Environmental	178	0	0	0	178	1.97	8.50
Overexertion	158	0	0	0	158	1.75	7.55
Poisoning	418	1765	1	160	2344	25.99	111.99
Struck by Object	287	0	243	5	535	5.93	25.56
Suffocation	7	15	1	2	25	0.28	1.19
Other Causes	776	40	182	224	1222	13.55	58.37
Total	5739	2054	774	453	9020	100.00	430.96

25-34 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	114	56	27	3	200	6.55	27.29
Drowning	7	0	0	0	7	0.23	0.95
Falls	477	5	0	1	483	15.82	65.97
Fire/Flame Burn	27	3	0	1	31	1.02	4.23
Hot object Burn	28	1	0	0	29	0.95	3.95
Firearms	34	13	25	7	79	2.59	10.79
Machinery	52	0	0	0	52	1.70	7.10
Motor Vehicle Traffic	640	0	0	0	640	20.96	87.34
Pedal Cyclist	24	0	0	0	24	0.79	3.28
Pedestrian, Other	8	0	0	0	8	0.26	1.10
Transport, Other	84	0	0	0	84	2.75	11.50
Natural/ Environmental	78	0	0	0	78	2.55	10.67
Overexertion	62	0	0	0	62	2.03	8.43
Poisoning	114	445	0	37	596	19.52	81.35
Struck by Object	149	0	76	3	228	7.47	31.11
Suffocation	1	8	0	1	10	0.33	1.37
Other Causes	322	22	45	54	443	14.51	60.54
Total	2221	553	173	107	3054	100.00	416.96

25-34 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	34	80	10	2	126	5.33	17.02
Drowning	0	0	0	0	0	0.00	0.00
Falls	396	0	1	0	397	16.80	53.63
Fire/Flame Burn	13	0	0	1	14	0.59	1.88
Hot object Burn	10	0	0	0	10	0.42	1.34
Firearms	8	7	6	3	24	1.02	3.25
Machinery	7	0	0	0	7	0.30	0.95
Motor Vehicle Traffic	402	3	0	0	405	17.14	54.70
Pedal Cyclist	1	0	0	0	0	0.00	0.14
Pedestrian, Other	1	0	0	0	0	0.00	0.14
Transport, Other	47	0	0	0	47	1.99	6.35
Natural/ Environmental	55	0	0	0	55	2.33	7.44
Overexertion	36	0	0	0	36	1.52	4.86
Poisoning	137	717	0	50	904	38.26	122.10
Struck by Object	41	0	32	0	73	3.09	9.87
Suffocation	1	3	1	0	5	0.21	0.68
Other Causes	163	10	31	54	258	10.92	34.97
Total	1352	820	81	110	2363	100.00	319.31

25-34 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	46	16	80	1	143	10.37	67.46
Drowning	1	0	0	0	1	0.07	0.47
Falls	141	0	1	2	144	10.44	67.95
Fire/Flame Burn	15	2	0	1	18	1.31	8.50
Hot object Burn	18	1	0	0	19	1.38	8.97
Firearms	24	4	112	29	169	12.26	79.67
Machinery	14	0	0	0	14	1.02	6.61
Motor Vehicle Traffic	252	2	0	1	255	18.49	120.29
Pedal Cyclist	6	0	0	0	6	0.44	2.83
Pedestrian, Other	1	0	0	0	1	0.07	0.47
Transport, Other	12	0	0	0	12	0.87	5.66
Natural/ Environmental	12	0	0	0	12	0.87	5.67
Overexertion	23	0	0	0	23	1.67	10.85
Poisoning	56	137	0	19	212	15.37	99.98
Struck by Object	45	0	72	2	119	8.63	56.12
Suffocation	1	2	0	1	4	0.29	1.89
Other Causes	143	4	60	20	227	16.46	107.13
Total	810	168	325	76	1379	100.00	650.52

25-34 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	10	14	23	0	47	5.89	20.35
Drowning	0	0	0	0	0	0.00	0.00
Falls	96	1	0	0	97	12.16	42.08
Fire/Flame Burn	7	1	0	0	8	1.00	3.49
Hot object Burn	10	0	0	0	10	1.25	4.35
Firearms	2	1	10	5	18	2.26	7.80
Machinery	2	0	0	0	2	0.25	0.87
Motor Vehicles	186	0	0	0	186	23.31	80.78
Pedal Cyclist	1	0	0	0	1	0.13	0.43
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	3	0	0	0	3	0.38	1.30
Natural/ Environmental	12	0	0	0	12	1.50	5.20
Overexertion	13	0	0	0	13	1.63	5.64
Poisoning	45	195	0	15	255	31.95	110.84
Struck by Object	6	0	22	0	28	3.51	12.16
Suffocation	4	0	0	0	4	0.50	1.75
Other Causes	69	0	25	20	114	14.29	49.62
Total	466	212	80	40	798	100.00	346.67

25-34 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	27.29	67.46	17.02	20.35
Drowning	0.95	0.47	0.00	0.00
Falls	65.97	67.95	53.63	42.08
Fire/Flame Burn	4.23	8.50	1.88	3.49
Hot object Burn	3.95	8.97	1.34	4.35
Firearms	10.79	79.67	3.25	7.80
Machinery	7.10	6.61	0.95	0.87
Motor Vehicle Traffic	87.34	120.29	54.70	80.78
Pedal Cyclist	3.28	2.83	0.14	0.43
Pedestrian, Other	1.10	0.47	0.14	0.00
Transport, Other	11.50	5.66	6.35	1.30
Natural/ Environmental	10.67	5.67	7.44	5.20
Overexertion	8.43	10.85	4.86	5.64
Poisoning	81.35	99.98	122.10	110.84
Struck by Object	31.11	56.12	9.87	12.16
Suffocation	1.37	1.89	0.68	1.75
Other Causes	60.54	107.13	34.97	49.62
Total	416.96	650.52	319.31	346.67

35-44 Years All Adults

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	216	174	144	20	554	5.17	24.03
Drowning	8	0	0	0	8	0.07	0.35
Falls	2160	11	2	5	2178	20.31	94.47
Fire/Flame Burn	94	6	1	2	103	0.96	4.48
Hot object Burn	81	1	1	1	84	0.78	3.64
Firearms	60	26	91	36	213	1.99	9.27
Machinery	139	0	0	0	139	1.30	5.99
Motor Vehicle Traffic	1642	2	0	0	1644	15.33	71.36
Pedal Cyclist	75	0	0	0	75	0.70	3.26
Pedestrian, Other	12	0	0	0	12	0.11	0.51
Transport, Other	190	0	0	0	190	1.77	8.24
Natural/ Environmental	289	1	0	2	292	2.72	12.65
Overexertion	204	0	0	0	204	1.90	8.84
Poisoning	608	1874	0	196	2678	24.97	116.11
Struck by Object	294	0	277	9	580	5.41	25.12
Suffocation	20	20	1	2	43	0.40	1.86
Other Causes	1076	39	214	398	1727	16.10	74.26
Total	7168	2154	731	671	10724	100.00	464.43

35-44 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	97	53	32	7	189	4.78	22.07
Drowning	7	0	0	0	7	0.18	0.82
Falls	882	4	0	4	890	22.51	104.00
Fire/Flame Burn	39	2	1	1	43	1.09	5.02
Hot object Burn	30	0	0	0	30	0.76	3.50
Firearms	27	14	23	15	79	2.00	9.23
Machinery	80	0	0	0	80	2.02	9.34
Motor Vehicle Traffic	623	1	0	0	624	15.78	72.91
Pedal Cyclist	38	0	0	0	38	0.96	4.44
Pedestrian, Other	6	0	0	0	6	0.15	0.70
Transport, Other	95	0	0	0	95	2.40	11.10
Natural/ Environmental	120	1	0	1	122	3.09	14.26
Overexertion	85	0	0	0	85	2.15	9.93
Poisoning	168	456	0	63	687	17.37	80.30
Struck by Object	172	0	114	4	290	7.33	33.87
Suffocation	11	9	0	1	21	0.53	2.46
Other Causes	475	15	65	113	668	16.89	78.00
Total	2955	555	235	209	3954	100.00	461.93

35-44 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	36	61	12	5	114	3.78	13.23
Drowning	1	0	0	0	1	0.03	0.12
Falls	598	4	0	0	602	19.99	69.79
Fire/Flame Burn	16	1	0	0	17	0.56	1.97
Hot object Burn	15	0	0	0	15	0.50	1.74
Firearms	7	8	7	2	24	0.80	2.79
Machinery	12	0	0	0	12	0.40	1.39
Motor Vehicle Traffic	407	1	0	0	408	13.55	47.33
Pedal Cyclist	14	0	0	0	14	0.46	1.63
Pedestrian, Other	3	0	0	0	3	0.10	0.35
Transport, Other	63	0	0	0	63	2.09	7.31
Natural/ Environmental	104	0	0	1	105	3.49	12.17
Overexertion	46	0	0	0	46	1.53	5.33
Poisoning	214	884	0	73	1171	38.88	135.73
Struck by Object	23	0	22	0	45	1.49	5.22
Suffocation	2	5	1	0	8	0.27	0.93
Other Causes	226	7	26	105	364	12.08	42.15
Total	1787	971	68	186	3012	100.00	349.17

35-44 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	38	24	64	4	130	8.15	58.48
Drowning	0	0	0	0	0	0.00	0.00
Falls	227	1	1	0	229	14.36	102.83
Fire/Flame Burn	18	2	0	1	21	1.32	9.44
Hot object Burn	22	1	1	0	24	14.36	10.81
Firearms	14	1	48	12	75	4.70	33.79
Machinery	29	0	0	0	29	1.82	12.98
Motor Vehicle Traffic	269	0	0	0	269	16.87	121.04
Pedal Cyclist	14	0	0	0	14	0.88	6.29
Pedestrian, Other	1	0	0	0	1	0.06	0.44
Transport, Other	14	0	0	0	14	0.88	6.24
Natural/ Environmental	24	0	0	0	24	1.50	10.76
Overexertion	35	0	0	0	35	2.19	15.73
Poisoning	91	126	0	21	238	14.92	106.97
Struck by Object	57	0	102	3	162	10.16	72.90
Suffocation	4	2	0	0	6	0.38	2.68
Other Causes	186	11	81	46	324	20.31	145.29
Total	1043	168	297	87	1595	100.00	716.66

35-44 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	17	20	17	2	56	6.60	22.66
Drowning	0	0	0	0	0	0.00	0.00
Falls	155	0	1	1	157	18.51	63.58
Fire/Flame Burn	13	1	0	0	14	1.65	5.67
Hot object Burn	6	0	0	0	6	0.71	2.46
Firearms	9	1	7	3	20	2.36	8.09
Machinery	5	0	0	0	5	0.59	2.04
Motor Vehicle Traffic	142	0	0	0	142	16.75	57.56
Pedal Cyclist	2	0	0	0	2	0.24	0.82
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	1	0	0	0	1	0.12	0.41
Natural/ Environmental	14	0	0	0	14	1.65	5.68
Overexertion	19	0	0	0	19	2.24	7.69
Poisoning	80	146	0	16	242	28.54	98.10
Struck by Object	6	0	20	1	27	3.18	10.92
Suffocation	2	1	0	0	3	0.35	1.20
Other Causes	89	4	20	27	140	16.51	56.54
Total	560	173	65	50	848	100.00	343.40

35-44 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	22.07	58.48	13.23	22.66
Drowning	0.82	0.00	0.12	0.00
Falls	104.00	102.83	69.79	63.58
Fire/Flame Burn	5.02	9.44	1.97	5.67
Hot object Burn	3.50	10.81	1.74	2.46
Firearms	9.23	33.79	2.79	8.09
Machinery	9.34	12.98	1.39	2.04
Motor Vehicle Traffic	72.91	121.04	47.33	57.56
Pedal Cyclist	4.44	6.29	1.63	0.82
Pedestrian, Other	0.70	0.44	0.35	0.00
Transport, Other	11.10	6.24	7.31	0.41
Natural/ Environmental	14.26	10.76	12.17	5.68
Overexertion	9.93	15.73	5.33	7.69
Poisoning	80.30	106.97	135.73	98.10
Struck by Object	33.87	72.90	5.22	10.92
Suffocation	2.46	2.68	0.93	1.20
Other Causes	78.00	145.29	42.15	56.54
Total	461.93	716.66	349.17	343.40

45-54 Years All Adults

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	175	81	54	10	320	3.71	17.55
Drowning	6	0	0	0	6	0.07	0.33
Falls	2656	3	1	4	2664	30.87	146.09
Fire/Flame Burn	63	3	1	0	67	0.78	3.69
Hot object Burn	75	0	1	0	76	0.88	4.16
Firearms	38	16	28	12	94	1.09	5.16
Machinery	95	0	0	0	95	1.10	5.21
Motor Vehicle Traffic	1208	1	0	0	1209	14.01	66.31
Pedal Cyclist	70	0	0	0	70	0.81	3.85
Pedestrian, Other	17	0	0	0	17	0.20	0.92
Transport, Other	182	0	0	0	182	2.11	9.96
Natural/ Environmental	242	0	0	1	243	2.82	13.30
Overexertion	153	0	0	0	153	1.77	8.38
Poisoning	434	999	0	120	1553	18.00	85.18
Struck by Object	180	0	131	1	312	3.62	17.08
Suffocation	22	6	0	1	29	0.34	1.59
Other Causes	905	29	113	492	1539	17.84	83.79
Total	6521	1138	329	641	8629	100.00	472.55

45-54 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	88	39	16	3	146	4.65	20.37
Drowning	4	0	0	0	4	0.13	0.56
Falls	973	2	0	1	976	31.08	135.90
Fire/Flame Burn	31	1	1	0	33	1.05	4.62
Hot object Burn	23	0	0	0	23	0.73	3.18
Firearms	22	7	7	5	41	1.31	5.72
Machinery	57	0	0	0	57	1.82	7.96
Motor Vehicle Traffic	449	1	0	0	450	14.33	62.78
Pedal Cyclist	36	0	0	0	36	1.15	5.04
Pedestrian, Other	7	0	0	0	7	0.22	0.96
Transport, Other	84	0	0	0	84	2.68	11.66
Natural/ Environmental	89	0	0	0	89	2.83	12.35
Overexertion	62	0	0	0	62	1.97	8.62
Poisoning	151	263	0	35	449	14.30	62.61
Struck by Object	101	0	39	1	141	4.49	19.58
Suffocation	7	2	0	1	10	0.32	1.41
Other Causes	334	11	30	157	532	16.94	73.59
Total	2518	326	93	203	3140	100.00	436.92

45-54 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	31	25	3	5	64	2.28	9.05
Drowning	1	0	0	0	1	0.04	0.14
Falls	984	0	0	0	984	34.98	139.21
Fire/Flame Burn	6	1	0	0	7	0.25	1.00
Hot object Burn	19	0	0	0	19	0.68	2.69
Firearms	4	5	5	0	14	0.50	1.98
Machinery	7	0	0	0	7	0.25	0.98
Motor Vehicle Traffic	345	0	0	0	345	12.26	48.79
Pedal Cyclist	10	0	0	0	10	0.36	1.41
Pedestrian, Other	6	0	0	0	6	0.21	0.85
Transport, Other	73	0	0	0	73	2.60	10.32
Natural/ Environmental	95	0	0	1	96	3.41	13.57
Overexertion	52	0	0	0	52	1.85	7.36
Poisoning	162	485	0	47	694	24.67	98.16
Struck by Object	26	0	16	0	42	1.49	5.94
Suffocation	7	3	0	0	10	0.36	1.41
Other Causes	247	7	18	117	389	13.83	54.83
Total	2075	526	42	170	2813	100.00	397.70

45-54 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	30	3	25	1	59	6.27	41.24
Drowning	0	0	0	0	0	0.00	0.00
Falls	196	0	1	1	198	21.04	138.32
Fire/Flame Burn	18	1	0	0	19	2.02	13.30
Hot object Burn	15	0	0	0	15	1.59	10.40
Firearms	4	2	14	5	25	2.66	17.46
Machinery	14	0	0	0	14	1.49	9.76
Motor Vehicle Traffic	151	0	0	0	151	16.05	105.27
Pedal Cyclist	13	0	0	0	13	1.38	9.13
Pedestrian, Other	3	0	0	0	3	0.32	2.06
Transport, Other	7	0	0	0	7	0.74	4.80
Natural/ Environmental	19	0	0	0	19	2.02	13.18
Overexertion	18	0	0	0	18	1.91	12.50
Poisoning	39	44	0	9	92	9.78	64.34
Struck by Object	25	0	62	0	87	9.25	60.26
Suffocation	5	0	0	0	5	0.53	3.49
Other Causes	136	6	40	34	216	22.95	149.70
Total	693	56	142	50	941	100.00	655.23

45-54 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	10	5	4	1	20	3.38	12.31
Drowning	1	0	0	0	1	0.17	0.61
Falls	138	1	0	2	141	23.86	87.76
Fire/Flame Burn	6	0	0	0	6	1.02	3.77
Hot object Burn	13	0	0	0	13	2.20	8.09
Firearms	3	1	2	1	7	1.18	4.32
Machinery	3	0	0	0	3	0.51	1.85
Motor Vehicle Traffic	116	0	0	0	116	19.63	72.35
Pedal Cyclist	2	0	0	0	2	0.34	1.28
Pedestrian, Other	0	0	0	0	0	0.00	0.00
Transport, Other	1	0	0	0	1	0.17	0.61
Natural/ Environmental	9	0	0	0	9	1.52	5.60
Overexertion	9	0	0	0	9	1.52	5.69
Poisoning	45	64	0	5	114	19.29	70.97
Struck by Object	9	0	4	0	13	2.20	8.22
Suffocation	0	0	0	0	0	0.00	0.00
Other Causes	88	2	10	36	136	23.01	84.13
Total	453	73	20	45	591	100.00	367.56

45-54 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	20.37	41.24	9.05	12.31
Drowning	0.56	0.00	0.14	0.61
Falls	135.90	138.32	139.21	87.76
Fire/Flame Burn	4.62	13.30	1.00	3.77
Hot object Burn	3.18	10.40	2.69	8.09
Firearms	5.72	17.46	1.98	4.32
Machinery	7.96	9.76	0.98	1.85
MV traffic	62.78	105.27	48.79	72.35
Pedal Cyclist	5.04	9.13	1.41	1.28
Pedestrian, Other	0.96	2.06	0.85	0.00
Transport, Other	11.66	4.80	10.32	0.61
Natural/ Environmental	12.35	13.18	13.57	5.60
Overexertion	8.62	12.50	7.36	5.69
Poisoning	62.61	64.34	98.16	70.97
Struck by Object	19.58	60.26	5.94	8.22
Suffocation	1.41	3.49	1.41	0.00
Other Causes	73.59	149.70	54.83	84.13
Total	436.92	655.23	397.70	367.56

55-54 Years All Adults

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	122	23	16	4	165	2.35	14.04
Drowning	7	1	0	0	8	0.11	0.68
Falls	3167	2	0	0	3169	45.18	269.70
Fire/Flame Burn	45	0	0	1	46	0.66	3.91
Hot object Burn	58	2	2	0	62	0.88	5.28
Firearms	21	14	7	3	45	0.64	3.83
Machinery	69	0	0	0	69	0.98	5.87
Motor Vehicle Traffic	880	0	0	0	880	12.55	74.89
Pedal Cyclist	42	0	0	0	42	0.60	3.57
Pedestrian, Other	6	0	0	0	6	0.09	0.51
Transport, Other	95	0	0	0	95	1.35	8.08
Natural/ Environmental	171	0	0	0	171	2.44	14.55
Overexertion	143	0	0	0	143	2.04	12.17
Poisoning	281	322	0	73	676	9.64	57.53
Struck by Object	133	0	51	0	184	2.62	15.66
Suffocation	26	0	0	0	26	0.37	2.21
Other Causes	685	16	31	495	1227	17.49	104.41
Total	5951	380	107	576	7014	100.00	596.93

55-54 Years White Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	61	7	2	3	73	2.88	15.92
Drowning	3	1	0	0	4	0.16	0.89
Falls	1035	0	0	0	1035	40.76	231.76
Fire/Flame Burn	21	0	0	0	21	0.83	4.70
Hot object Burn	20	1	1	0	22	0.87	4.97
Firearms	11	8	3	3	25	0.98	5.57
Machinery	46	0	0	0	46	1.81	10.30
Motor Vehicle Traffic	318	0	0	0	318	12.52	71.28
Pedal Cyclist	19	0	0	0	19	0.75	4.26
Pedestrian, Other	2	0	0	0	2	0.08	0.46
Transport, Other	49	0	0	0	49	1.93	10.95
Natural/ Environmental	70	0	0	0	70	2.76	15.68
Overexertion	51	0	0	0	51	2.01	11.45
Poisoning	87	109	0	30	226	8.90	50.81
Struck by Object	62	0	17	0	79	3.11	17.74
Suffocation	12	0	0	0	12	0.47	2.70
Other Causes	280	5	11	191	487	19.18	108.45
Total	2147	131	34	227	2539	100.00	567.89

55-64 Years White Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	31	10	2	1	44	1.75	9.44
Drowning	2	0	0	0	2	0.08	0.43
Falls	1332	2	0	0	1334	53.11	285.41
Fire/Flame Burn	10	0	0	0	10	0.40	2.16
Hot object Burn	20	0	0	0	20	0.80	4.31
Firearms	4	3	0	0	7	0.28	1.51
Machinery	7	0	0	0	7	0.28	1.50
Motor Vehicle Traffic	284	0	0	0	284	11.31	60.80
Pedal Cyclist	15	0	0	0	15	0.60	3.22
Pedestrian, Other	1	0	0	0	1	0.04	0.21
Transport, Other	35	0	0	0	35	1.39	7.44
Natural/ Environmental	57	0	0	0	57	2.27	12.22
Overexertion	58	0	0	0	58	2.31	12.41
Poisoning	105	138	0	25	268	10.67	57.27
Struck by Object	27	0	10	0	37	1.47	7.88
Suffocation	9	0	0	0	9	0.36	1.92
Other Causes	205	7	7	105	324	12.90	68.85
Total	2202	160	19	131	2512	100.00	536.99

55-64 Years Black Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	14	1	8	0	23	4.19	29.26
Drowning	1	0	0	0	1	0.18	1.29
Falls	164	0	0	0	164	29.87	207.41
Fire/Flame Burn	7	0	0	1	8	1.46	10.13
Hot object Burn	7	1	1	0	9	1.64	11.41
Firearms	3	3	1	0	7	1.28	8.88
Machinery	9	0	0	0	9	1.64	11.37
Motor Vehicle Traffic	99	0	0	0	99	18.03	125.81
Pedal Cyclist	5	0	0	0	5	0.91	6.31
Pedestrian, Other	2	0	0	0	2	0.36	2.53
Transport, Other	3	0	0	0	3	0.55	3.82
Natural/ Environmental	19	0	0	0	19	3.46	24.03
Overexertion	12	0	0	0	12	2.19	15.10
Poisoning	23	6	0	4	33	6.01	41.84
Struck by Object	18	0	11	0	29	5.28	36.73
Suffocation	1	0	0	0	1	0.18	1.24
Other Causes	74	3	5	43	125	22.77	156.69
Total	461	14	26	48	549	100.00	693.85

55-64 Years Black Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	7	1	1	0	9	2.01	9.05
Drowning	0	0	0	0	0	0.00	0.00
Falls	191	0	0	0	191	42.63	192.00
Fire/Flame Burn	7	0	0	0	7	1.56	6.98
Hot object Burn	5	0	0	0	5	1.12	4.97
Firearms	0	0	0	0	0	0.00	0.00
Machinery	2	0	0	0	2	0.45	1.98
Motor Vehicle Traffic	59	0	0	0	59	13.17	59.43
Pedal Cyclist	0	0	0	0	0	0.00	0.00
Pedestrian, Other	1	0	0	0	1	0.22	1.02
Transport, Other	4	0	0	0	4	0.89	4.01
Natural/ Environmental	7	0	0	0	7	1.56	7.04
Overexertion	13	0	0	0	13	2.90	13.03
Poisoning	36	16	0	2	54	12.05	54.27
Struck by Object	2	0	3	0	5	1.12	5.06
Suffocation	3	0	0	0	3	0.67	2.99
Other Causes	60	0	5	23	88	19.64	87.83
Total	397	17	9	25	448	100.00	449.65

55-64 Years Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	15.92	29.26	9.44	9.05
Drowning	0.89	1.29	0.43	0.00
Falls	231.76	207.41	285.41	192.00
Fire/Flame Burn	4.70	10.13	2.16	6.98
Hot object Burn	4.97	11.41	4.31	4.97
Firearms	5.57	8.88	1.51	0.00
Machinery	10.30	11.37	1.50	1.98
Motor Vehicle Traffic	71.28	125.81	60.80	59.43
Pedal Cyclist	4.26	6.31	3.22	0.00
Pedestrian, Other	0.46	2.53	0.21	1.02
Transport, Other	10.95	3.82	7.44	4.01
Natural/ Environmental	15.68	24.03	12.22	7.04
Overexertion	11.45	15.10	12.41	13.03
Poisoning	50.81	41.84	57.27	54.27
Struck by Object	17.74	36.73	7.88	5.06
Suffocation	2.70	1.24	1.92	2.99
Other Causes	108.45	156.69	68.85	87.83
Total	567.89	693.85	536.99	449.65

65 Years and Over All Adults

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	194	28	11	17	250	0.77	16.39
Drowning	13	0	0	0	13	0.04	0.86
Falls	23665	2	0	1	23668	72.61	1549.04
Fire/Flame Burn	118	0	0	2	120	0.37	7.85
Hot object Burn	140	1	0	0	141	0.43	9.24
Firearms	40	20	4	10	74	0.23	4.82
Machinery	84	0	0	0	84	0.26	5.49
Motor Vehicle Traffic	1828	0	0	0	1828	5.61	119.63
Pedal Cyclist	51	0	0	0	51	0.16	3.35
Pedestrian, Other	35	0	0	0	35	0.11	2.27
Transport, Other	175	0	0	0	175	0.54	11.42
Natural/ Environmental	521	0	0	5	526	1.61	34.41
Overexertion	324	0	0	0	324	0.99	21.20
Poisoning	829	652	1	154	1636	5.02	107.15
Struck by Object	273	0	117	0	390	1.20	25.52
Suffocation	162	3	0	1	166	0.51	10.86
Other Causes	2105	23	58	927	3113	9.55	202.93
Total	30557	729	191	1117	32594	100.00	2132.43

65 Years and Over White Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	92	10	4	6	112	1.46	21.83
Drowning	3	0	0	0	3	0.04	0.59
Falls	4857	1	0	0	4858	63.16	946.31
Fire/Flame Burn	37	0	0	0	37	0.48	7.19
Hot object Burn	34	0	0	0	34	0.44	6.63
Firearms	19	13	2	3	37	0.48	7.20
Machinery	63	0	0	0	63	0.82	12.26
Motor Vehicle Traffic	582	0	0	0	582	7.57	113.35
Pedal Cyclist	26	0	0	0	26	0.34	5.07
Pedestrian, Other	9	0	0	0	9	0.12	1.74
Transport, Other	78	0	0	0	78	1.01	15.16
Natural/ Environmental	165	0	0	0	165	2.15	32.11
Overexertion	83	0	0	0	83	1.08	16.15
Poisoning	223	206	0	42	471	6.12	91.80
Struck by Object	105	0	26	0	131	1.70	25.50
Suffocation	55	2	0	1	58	0.75	11.30
Other Causes	598	14	8	325	945	12.29	183.69
Total	7029	246	40	377	7692	100.00	1497.90

65 Years and Over White Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	78	15	2	9	104	0.58	14.15
Drowning	2	0	0	0	2	0.01	0.27
Falls	13984	0	0	1	13985	78.31	1901.82
Fire/Flame Burn	43	0	0	1	44	0.25	5.99
Hot object Burn	61	0	0	0	61	0.34	8.30
Firearms	16	5	0	5	26	0.15	3.53
Machinery	9	0	0	0	9	0.05	1.22
MV traffic	811	0	0	0	811	4.54	110.29
Pedal Cyclist	14	0	0	0	14	0.08	1.91
Pedestrian, Other	15	0	0	0	15	0.08	2.04
Transport, Other	62	0	0	0	62	0.35	8.42
Natural/ Environmental	216	0	0	4	220	1.23	29.92
Overexertion	170	0	0	0	170	0.95	23.12
Poisoning	381	311	0	75	767	4.29	104.31
Struck by Object	132	0	30	0	162	0.91	22.02
Suffocation	67	1	0	0	68	0.38	9.25
Other Causes	991	9	29	310	1339	7.50	182.02
Total	17052	341	61	405	17859	100.00	2428.56

65 Years and Over Black Males

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	6	0	4	0	10	1.08	10.42
Drowning	0	0	0	0	0	0.00	0.00
Falls	487	0	0	0	487	52.65	507.35
Fire/Flame Burn	16	0	0	0	16	1.73	16.64
Hot object Burn	15	0	0	0	15	1.62	15.65
Firearms	2	0	0	1	3	0.32	3.12
Machinery	8	0	0	0	8	0.86	8.33
Motor Vehicle Traffic	85	0	0	0	85	9.19	88.54
Pedal Cyclist	3	0	0	0	3	0.32	3.13
Pedestrian, Other	2	0	0	0	2	0.22	2.08
Transport, Other	7	0	0	0	7	0.76	7.29
Natural/ Environmental	24	0	0	0	24	2.59	24.99
Overexertion	11	0	0	0	11	1.19	11.48
Poisoning	57	14	0	4	75	8.11	78.16
Struck by Object	4	0	6	0	10	1.08	10.42
Suffocation	7	0	0	0	7	0.76	7.26
Other Causes	139	0	2	21	162	17.51	168.63
Total	873	14	12	26	925	100.00	963.50

65 Years and Over Black Females

Causes	Unintentional	Self Inflicted	Assault	Undertemined	Total	Column (%)	Rate
Cut/ Pierce	5	1	1	0	7	0.43	4.82
Drowning	0	0	0	0	0	0.00	0.00
Falls	1111	0	0	0	1111	68.03	764.13
Fire/Flame Burn	10	0	0	1	11	0.67	7.57
Hot object Burn	12	1	0	0	13	0.80	8.94
Firearms	1	0	2	0	3	0.18	2.06
Machinery	0	0	0	0	0	0.00	0.00
Motor Vehicle Traffic	105	0	0	0	105	6.43	72.19
Pedal Cyclist	1	0	0	0	1	0.06	0.68
Pedestrian, Other	4	0	0	0	4	0.24	2.75
Transport, Other	2	0	0	0	2	0.12	1.37
Natural/ Environmental	35	0	0	0	35	2.14	24.05
Overexertion	26	0	0	0	26	1.59	17.89
Poisoning	71	15	0	7	93	5.70	64.00
Struck by Object	8	0	6	0	14	0.86	9.63
Suffocation	16	0	0	0	16	0.98	11.00
Other Causes	158	0	6	28	192	11.76	131.95
Total	1565	17	15	36	1633	100.00	1123.04

65 Years and Over Rates

Causes	White Males	Black Males	White Females	Black Females
Cut/ Pierce	21.83	10.42	14.15	4.82
Drowning	0.59	0.00	0.27	0.00
Falls	946.31	507.35	1901.82	764.13
Fire/Flame Burn	7.19	16.64	5.99	7.57
Hot object Burn	6.63	15.65	8.30	8.94
Firearms	7.20	3.12	3.53	2.06
Machinery	12.26	8.33	1.22	0.00
Motor Vehicle Traffic	113.35	88.54	110.29	72.19
Pedal Cyclist	5.07	3.13	1.91	0.68
Pedestrian, Other	1.74	2.08	2.04	2.75
Transport, Other	15.16	7.29	8.42	1.37
Natural/ Environmental	32.11	24.99	29.92	24.05
Overexertion	16.15	11.48	23.12	17.89
Poisoning	91.80	78.16	104.31	64.00
Struck by Object	25.50	10.42	22.02	9.63
Suffocation	11.30	7.26	9.25	11.00
Other Causes	183.69	168.63	182.02	131.95
Total	1497.90	963.50	2428.56	1123.04

**Rates are calculated per 100,000 of the population in each group*

Appendix C

Draft Listing of Detailed E-Coded Grouping Taken from

<http://www.eicd.com/icd-9-cm.htm>

RAILWAY ACCIDENTS (E800-E807)

E800: Railway accident involving collision with rolling stock
E801: Railway accident involving collision with other object
E802: Railway accident involving derailment without antecedent collision
E803: Railway accident involving explosion, fire, or burning
E804: Fall in, on, or from railway train
E805: Hit by rolling stock
E806: Other specified railway accident
E807: Railway accident of unspecified nature

MOTOR VEHICLE TRAFFIC ACCIDENTS (E810-E819)

E810: Motor vehicle traffic accident involving collision with train
E811: Motor vehicle traffic accident involving re-entrant collision with another motor vehicle
E812: Other motor vehicle traffic accident involving collision with motor vehicle
E813: Motor vehicle traffic accident involving collision with other vehicle
E814: Motor vehicle traffic accident involving collision with pedestrian
E815: Other motor vehicle traffic accident involving collision on the highway
E816: Motor vehicle traffic accident due to loss of control, without collision on the highway
E817: Noncollision motor vehicle traffic accident while boarding or alighting
E818: Other noncollision motor vehicle traffic accident
E819: Motor vehicle traffic accident of unspecified nature

MOTOR VEHICLE NONTRAFFIC ACCIDENTS (E820-E825)

E820: Nontraffic accident involving motor-driven snow vehicle
E821: Nontraffic accident involving other off-road motor vehicle
E822: Other motor vehicle nontraffic accident involving collision with moving object
E823: Other motor vehicle nontraffic accident involving collision with stationary object
E824: Other motor vehicle nontraffic accident while boarding and alighting
E825: Other motor vehicle nontraffic accident of other and unspecified nature

OTHER ROAD VEHICLE ACCIDENTS (E826-E829)

E826: Pedal cycle accident
E827: Animal-drawn vehicle accident
E828: Accident involving animal being ridden
E829: Other road vehicle accidents

WATER TRANSPORT ACCIDENTS (E830-E838)

E830: Accident to watercraft causing submersion
E831: Accident to watercraft causing other injury

E832: Other accidental submersion or drowning in water transport accident

- E833: Fall on stairs or ladders in water transport
- E834: Other fall from one level to another in water transport
- E835: Other and unspecified fall in water transport
- E836: Machinery accident in water transport
- E837: Explosion, fire, or burning in watercraft
- E838: Other and unspecified water transport accident

AIR AND SPACE TRANSPORT ACCIDENTS (E840-E845)

- E840: Accident to powered aircraft at takeoff or landing
- E841: Accident to powered aircraft, other and unspecified
- E842: Accident to unpowered aircraft
- E843: Fall in, on, or from aircraft
- E844: Other specified air transport accidents
- E845: Accident involving spacecraft

VEHICLE ACCIDENTS NOT ELSEWHERE CLASSIFIED (E846-E848)

- E846: Accidents involving powered vehicles used solely within the buildings and premises of industrial or commercial establishment
- E847: Accidents involving cable cars not running on rails
- E848: Accidents involving other vehicles, not elsewhere classifiable

PLACE OF ACCIDENT OCCURRENCE (E849)

- E849: Place of occurrence

ACCIDENTAL POISONING BY DRUGS, MEDICINAL SUBSTANCES, AND BIOLOGICALS (E850-E858)

- E850: Accidental poisoning by analgesics, antipyretics, and antirheumatics
- E851: Accidental poisoning by barbiturates
- E852: Accidental poisoning by other sedatives and hypnotics
- E853: Accidental poisoning by tranquilizers
- E854: Accidental poisoning by other psychotropic agents
- E855: Accidental poisoning by other drugs acting on central and autonomic nervous system
- E856: Accidental poisoning by antibiotics
- E857: Accidental poisoning by other anti-infectives
- E858: Accidental poisoning by other drugs

ACCIDENTAL POISONING BY OTHER SOLID AND LIQUID SUBSTANCES, GASES, AND VAPORS (E860-E869)

E860: Accidental poisoning by alcohol not elsewhere classified

E861: Accidental poisoning by cleansing and polishing agents, disinfectants, paints, and varnishes

E862: Accidental poisoning by petroleum products, other solvents and their vapors, not elsewhere classified

E863: Accidental poisoning by agricultural and horticultural chemical and pharmaceutical preparations other than plant foods and fertilizers

E864: Accidental poisoning by corrosives and caustics, not elsewhere classified

E865: Accidental poisoning from poisonous foodstuffs and poisonous plants

E866: Accidental poisoning by other and unspecified solid and liquid substances

E867: Accidental poisoning by gas distributed by pipeline

E868: Accidental poisoning by other utility gas and other carbon monoxide

E869: Accidental poisoning by other gases and vapors

MISADVENTURES TO PATIENTS DURING SURGICAL AND MEDICAL CARE (E870-E876)

E870: Accidental cut, puncture, perforation, or hemorrhage during medical care

E871: Foreign object left in body during procedure

E872: Failure of sterile precautions during procedure

E873: Failure in dosage

E874: Mechanical failure of instrument or apparatus during procedure

E875: Contaminated or infected blood, other fluid, drug, or biological substance

E876: Other and unspecified misadventures during medical care

SURGICAL AND MEDICAL PROCEDURES AS THE CAUSE OF ABNORMAL REACTION OF PATIENT OR LATER COMPLICATION, WITHOUT MENTION OF MISADVENTURE AT THE TIME OF THE PROCEDURE (E878-E879)

E878: Surgical operation and other surgical procedures as the cause of abnormal reaction of patient, or of later complication, without mention of misadventure at the time of operation

E879: Other procedures, without mention of misadventure at the time of procedure, as the cause of abnormal reaction of patient, or of later complication

ACCIDENTAL FALLS (E880-E888)

E880: Fall on or from stairs or steps

E881: Fall on or from ladders or scaffolding

E882: Fall from or out of building or other structure

E883: Fall into hole or other opening in surface

E884: Other fall from one level to another

E885: Fall on same level from slipping, tripping, or stumbling

E886: Fall on same level from collision, pushing, or shoving, by or with other person
E887: Fracture, cause unspecified
E888: Other and unspecified fall

ACCIDENTS CAUSED BY FIRE AND FLAMES (E890-E899)

E890: Conflagration in private dwelling
E891: Conflagration in other and unspecified building or structure
E892: Conflagration not in building or structure
E893: Accident caused by ignition of clothing
E894: Ignition of highly inflammable material
E895: Accident caused by controlled fire in private dwelling
E896: Accident caused by controlled fire in other and unspecified building or structure
E897: Accident caused by controlled fire not in building or structure
E898: Accident caused by other specified fire and flames
E899: Accident caused by unspecified fire

ACCIDENTS DUE TO NATURAL AND ENVIRONMENTAL FACTORS (E900-E909)

E900: Excessive heat
E901: Excessive cold
E902: High and low air pressure and changes in air pressure
E903: Travel and motion
E904: Hunger, thirst, exposure, and neglect
E905: Venomous animals and plants as the cause of poisoning and toxic reactions
E906: Other injury caused by animals
E907: Lightning
E908: Cataclysmic storms, and floods resulting from storms
E909: Cataclysmic earth surface movements and eruptions

ACCIDENTS CAUSED BY SUBMERSION, SUFFOCATION, AND FOREIGN BODIES (E910-E915)

E910: Accidental drowning and submersion
E911: Inhalation and ingestion of food causing obstruction of respiratory tract or suffocation
E912: Inhalation and ingestion of other object causing obstruction of respiratory tract or suffocation
E913: Accidental mechanical suffocation
E914: Foreign body accidentally entering eye and adnexa
E915: Foreign body accidentally entering other orifice

OTHER ACCIDENTS (E916-E928)

E916: Struck accidentally by falling object

E917: Striking against or struck accidentally by objects or persons
E918: Caught accidentally in or between objects
E919: Accidents caused by machinery
E920: Accidents caused by cutting and piercing instruments or objects
E921: Accident caused by explosion of pressure vessel
E922: Accident caused by firearm and air gun missile
E923: Accident caused by explosive material
E924: Accident caused by hot substance or object, caustic or corrosive material, and steam
E925: Accident caused by electric current
E926: Exposure to radiation
E927: Overexertion and strenuous movements
E928: Other and unspecified environmental and accidental causes

LATE EFFECTS OF ACCIDENTAL INJURY (E929)

E929: Late effects of accidental injury

DRUGS MEDICINAL AND BIOLOGICAL SUBSTANCES CAUSING ADVERSE EFFECTS IN THERAPEUTIC USE (E930-E949)

E930: Antibiotics
E931: Other anti-infectives
E932: Hormones and synthetic substitutes
E933: Primarily systemic agents
E934: Agents primarily affecting blood constituents
E935: Analgesics, antipyretics, and antirheumatics
E936: Anticonvulsant and anti-Parkinsonism drugs
E937: Sedatives and hypnotics
E938: Other central nervous system depressants and anesthetics
E939: Psychotropic agents
E940: Central nervous system stimulants
E941: Drugs primarily affecting the autonomic nervous system
E942: Agents primarily affecting the cardiovascular system
E943: Agents primarily affecting gastrointestinal system
E944: Water, mineral, and uric acid metabolism drugs
E945: Agents primarily acting on the smooth and skeletal muscles and respiratory system
E946: Agents primarily affecting skin and mucous membrane, ophthalmological, otorhinolaryngological, and dental drugs
E947: Other and unspecified drugs and medicinal substances
E948: Bacterial vaccines
E949: Other vaccines and biological substances

SUICIDE AND SELF-INFLICTED INJURY (E950-E959)

E950: Suicide and self-inflicted poisoning by solid or liquid substances

E951: Suicide and self-inflicted poisoning by gases in domestic use
E952: Suicide and self-inflicted poisoning by other gases and vapors
E953: Suicide and self-inflicted injury by hanging, strangulation, and suffocation
E954: Suicide and self-inflicted injury by submersion [drowning]
E955: Suicide and self-inflicted injury by firearms, air guns and explosives
E956: Suicide and self-inflicted injury by cutting and piercing instrument
E957: Suicide and self-inflicted injuries by jumping from high place
E958: Suicide and self-inflicted injury by other and unspecified means
E959: Late effects of self-inflicted injury

HOMICIDE AND INJURY PURPOSELY INFLICTED BY OTHER PERSONS (E960-E969)

E960: Fight, brawl, rape
E961: Assault by corrosive or caustic substance, except poisoning
E962: Assault by poisoning
E963: Assault by hanging and strangulation
E964: Assault by submersion [drowning]
E965: Assault by firearms and explosives
E966: Assault by cutting and piercing instrument
E967: Perpetrator of child and adult abuse
E968: Assault by other and unspecified means
E969: Late effects of injury purposely inflicted by other person

LEGAL INTERVENTION (E970-E978)

E970: Injury due to legal intervention by firearms
E971: Injury due to legal intervention by explosives
E972: Injury due to legal intervention by gas
E973: Injury due to legal intervention by blunt object
E974: Injury due to legal intervention by cutting and piercing instrument
E975: Injury due to legal intervention by other specified means
E976: Injury due to legal intervention by unspecified means
E977: Late effects of injuries due to legal intervention
E978: Legal execution

INJURY UNDETERMINED WHETHER ACCIDENTALLY OR PURPOSELY INFLICTED (E980-E989)

E980: Poisoning by solid or liquid substances, undetermined whether accidentally or purposely inflicted
E981 :Poisoning by gases in domestic use, undetermined whether accidentally or purposely inflicted
E982: Poisoning by other gases, undetermined whether accidentally or purposely inflicted

- E983: Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted
- E984: Submersion [drowning], undetermined whether accidentally or purposely inflicted
- E985: Injury by firearms, air guns and explosives, undetermined whether accidentally or purposely inflicted
- E986: Injury by cutting and piercing instruments, undetermined whether accidentally or purposely inflicted
- E987: Falling from high place, undetermined whether accidentally or purposely inflicted
- E988: Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted
- E989: Late effects of injury, undetermined whether accidentally or purposely inflicted

INJURY RESULTING FROM OPERATIONS OF WAR (E990-E999)

- E990: Injury due to war operations by fires and conflagrations
- E991: Injury due to war operations by bullets and fragments
- E992: Injury due to war operations by explosion of marine weapons
- E993: Injury due to war operations by other explosion
- E994: Injury due to war operations by destruction of aircraft
- E995: Injury due to war operations by other and unspecified forms of conventional warfare
- E996: Injury due to war operations by nuclear weapons
- E997: Injury due to war operations by other forms of unconventional warfare
- E998: Injury due to war operations but occurring after cessation of hostilities
- E999: Late effect of injury due to war operations



INJURIES ARE PREVENTABLE

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